

## ABSTRACT

Title of Document: Relational Demography in the Service Sector:  
How the “Work Community” Influences  
Employee Transfer and Turnover

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Studies of relational demography examine the relationship between the extent to which employees' demographic characteristics differ from their co-workers' and employees' behaviors. In this dissertation, I examined not only the effects on employee withdrawal behavior of an employee's demographic differences from his or her coworker's demographic characteristics, but also the effects on employee withdrawal behavior of an employee's demographic differences from his or her supervisor and customers' demographic characteristics. I examined the influence of several demographic characteristics (age, gender, race, tenure, part-time/full-time status) on two employee withdrawal behaviors: turnover and transfer. Based on similarity-attraction theory, self-categorization theory, and social identity theory, I tested three potentially competing models of the relationship between relational demography and withdrawal behaviors. These three models – the linear model, the asymmetric model, and the moderated model – suggest distinctly different relationships between relational

demography and withdrawal behavior. Performing these analyses longitudinally, I found support for all three relationship models, depending on the demographic characteristic, the referent group (i.e., coworkers, supervisor, or customers), and the outcome (i.e., transfer or turnover). While I did find some support, these relationships added little predictive power above and beyond the simple demographic characteristics and control variables.

RELATIONAL DEMOGRAPHY IN THE SERVICE SECTOR: HOW THE “WORK  
COMMUNITY” INFLUENCES EMPLOYEE TRANSFER AND TURNOVER

By

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## Relational Demography in the Service Sector: How the “Work Community” Influences Employee Transfer and Turnover

Employees typically interact with a variety of individuals while on the job. An employee’s “work community” consists of his or her co-workers, supervisors, subordinates, and customers. Typically, an employee’s work community includes individuals of differing demographic characteristics. These demographic characteristics include both visible or ascribed attributes (e.g., age, race, gender) and less visible or organizational attributes (e.g., tenure, education, functional background)<sup>1</sup>. In recent decades, employees’ work communities have grown increasingly demographically diverse. To be sure, women, older individuals, and minority groups are holding jobs to a much greater extent than even one or two decades ago. Further, approximately one out of every four individuals currently in the United States is a member of some minority group ([www.census.gov](http://www.census.gov); Kulish, 2001). Consequently, individuals are increasingly likely to interact and work with others from whom they differ demographically. Therefore, a fundamental question arises regarding the effects of relational demographic differences on employee behavior.

Early studies examining the potential influence of demographic characteristics focused almost exclusively on simple demographics at the individual level of analysis. Research showed that simple demographic variables such as age, tenure, and gender are

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<sup>1</sup> Numerous typologies for demographic characteristics exist, with most of them differentiating between characteristics ascribed to the individual (i.e., visible or immutable) and those achieved by the individual (i.e., underlying or more job related). I chose the current terminology (visible, job-related) to represent these general differences.

related to work outcomes such as attitudes, turnover, and performance (e.g., Hom, 1995; Pfeffer, 1983). *Relational demography* research extends this investigation to examine individual characteristics within context. This stream of research acknowledges "...that what may be critical is not an individual's characteristics in isolation [simple demographics], but rather, the relationship of his or her attributes to others in the organization" (Wagner, Pfeffer, & O'Reilly, 1984, p. 74-75). Relational demography research, therefore, examines the influence of demographic characteristics at the individual-within-the-group level of analysis beyond the effects of the simple demographic characteristics. The premise of this research is that the extent to which an individual's demographic characteristics differ from those of his or her coworkers, not just the characteristics in isolation, may influence the individual's work-related attitudes and behaviors (Riordan & Shore, 1997). A typical relational demography study may investigate such questions as: Is being racially different from one's work group related to turnover intentions? Or, is being different from the group in regards to one's educational background related to job satisfaction? In this study, I focused on the relational demography approach, or on the individual-within-the-group level of analysis. Further, I investigated how an employee's similarity (or dissimilarity) to his/her work community (i.e., co-workers, supervisor, and customers) influenced two employee withdrawal behaviors: turnover and transfer.

Turnover is a widely studied outcome of interest for organizations. Bluedorn (1982) reported more than 1,500 studies of turnover, and this pattern surely has not waned in the last 20 years. The Bureau of Labor Statistics reported that the typical

American worker holds nine different jobs before the age of 32 (Dobbs, 2001). The concern for employee retention is real for organizations.

Rather than leaving an organization, employees may opt to withdraw in a less obvious way, for instance, by transferring to a different unit. With approximately 500,000-800,000 transfers occurring every year, surprisingly, few researchers have investigated the predictors or consequences of employee transfer (Dalton, 1997). From the view of the work community, when an employee transfers, it is as if he or she has turned over. The dynamics of the group change and, typically, a new person (either transferred or a new hire) must fill-in the vacant spot. These changes will, of course, also change the relational demography within the group.

From the view of the employee, he or she may wish to leave the organization due to relational demography differences, but because of internal (i.e., opportunity to transfer) or external circumstances (i.e., high unemployment rate) may opt to make a less drastic change and choose to transfer to another location. Further, relational demography issues are about relationships with the work community; hence leaving the organization may not be a necessary outcome behavior for the employee. That is, if the employee is able to transfer, the employee may attempt to solve the relationship problem stemming from relational demography differences by transferring to another location. So while there are an abundance of articles that examine actual turnover, I also opted to examine the relationship between relational demographic differences and a form of employee withdrawal; transfer.

The results of prior studies of relational demography are quite inconsistent. For instance, relational demography research has shown that being different from one's co-

workers may lead to decreased communication (e.g., Zenger & Lawrence, 1989), emotional conflict (e.g. Pelled, 1996), and turnover (e.g., Jackson, Brett, Sessa, Cooper, Julin, & Peyronnin, 1991). Yet, other studies have found no significant relationships between relational demography and conflict (Jehn, Chadwick, & Thatcher, 1997), turnover (Jackson et al., 1991), or commitment (Tsui, Egan, & O'Reilly, 1992).

There are several potential reasons for the lack of consistent findings in relational demography research. I review four potential reasons and outline how this proposed study may contribute to the literature. First, these inconsistent results may be due to the fact that instead of equally relating to an outcome, the different demographic characteristics may have differing relationships with outcome behaviors. Past researchers have mainly examined a direct positive linear relationship with their outcome variables, though researchers have also posited moderated, U-shaped, and/or asymmetric relationships with varying support. This plethora of relationships may confuse the reader as to the influence or lack thereof of relational demography research on employee behaviors. In this dissertation, I explored three competing theoretically-based relationship models: *direct positive linear*, *moderated by tenure*, and *asymmetric*. That is, in this study, I investigated the potential for demographic characteristics to both equally and/or differentially influence employee withdrawal behaviors based on these three competing relationship models.

Researchers predicting a *direct positive linear relationship* hypothesize that as demographic differences increase so, too, do negative employee behaviors such as turnover or transfer. Researchers predicting a *relationship moderated by tenure* hypothesize that early in an employee's tenure, differences on visible demographic

characteristics (i.e., gender or race differences) are more predictive of an employee's withdrawal behaviors than are differences on job-related characteristics. Over time, however, as an employee gets to know his/her work community better (longer tenure), differences on job-related demographic characteristics (e.g., functional background, organizational tenure) acquire greater influence on employee withdrawal behavior. Researchers predicting an *asymmetric relationship* hypothesize that the strength of the relationship between demographic differences and employee withdrawal behaviors varies as a function of employee characteristics, specifically gender and race. Thus, for example, Blacks whose work community is predominantly White may be less likely to withdraw than are Whites whose work community is predominantly Black. Similarly, females whose work community is predominantly male may be less likely to withdraw than are males whose work community is predominantly female. Investigation into this asymmetric relationship is in its nascent state.

The literature has not *consistently* supported any one of these relationships. That is, past research has shown only occasional support for linear, moderated, or asymmetric relationships (e.g., Riordan, 2000). One goal of this study, therefore, was to further examine these competing models of the relationship between work community relational demography and employee withdrawal behaviors. More specifically, I wished to investigate, based on theoretical underpinnings, if for some characteristics a linear relationship existed, while for other characteristics a moderated by tenure relationship held, while still others may have had an asymmetric relationship with transfer or turnover.

A second potential reason for inconsistent findings may be differences in researchers' choice of employee comparison referent groups. Tsui and Gutek (1999) proposed that there are three groups who may have influence over employee behavior: co-workers, supervisors, and customers. Most relational demography researchers have investigated the correlates of demographic differences between an employee and his or her co-workers. Others have examined the correlates of demographic differences between an employee and his or her supervisor (e.g., Tsui, et al., 1992). Yet, as will be described later, demographic differences between an employee and these two referent groups may influence employee withdrawal behaviors differently. As such, the results may appear contradictory or inconsistent.

Few, if any studies, have examined the correlates of demographic differences between an employee and the customers with whom the employee interacts (for an exception see Smith, 1998). As the workforce has moved increasingly from manufacturing to more service oriented jobs, it is surprising that investigators have not examined the effects on employee behaviors of demographic differences between employees and their customers. Service employees often spend large portions of their time with customers or clients rather than with co-workers or supervisors. For this reason, the customer has even been considered a "partial employee" (Mills & Morris, 1986). In the banking industry, for example, it is not uncommon for employees to spend a good percentage of their hours interacting with customers rather than co-workers or supervisors, even though they may be standing in close proximity to fellow employees. As such, customers in such settings may be even more likely to exert influence on employee behavior. In a qualitative study of supermarket cashiers, Rafaeli (1989) found

that customers, not co-workers or management, had the most influence over the employee (e.g., to punish, correct, make the job enjoyable). Further, Mueller, Finley, Iverson, and Price (1999) found that for teachers, being demographically different from their students rather than from other teachers, led to lower commitment and satisfaction. Although these are only two studies, they do provide initial support for the potential importance of the employee-customer relationship for employee attitudes and/or withdrawal behavior. This study, therefore, adds to the existing literature by examining and comparing demographic differences from all three referent groups: an employee and his or her coworkers, his or her supervisor, and his or her customers.

Third, inconsistent findings regarding turnover (and other outcome behaviors) may be a consequence of comparing results across different demographic characteristics (e.g., race, gender, age, tenure), expecting all characteristics to relate to the outcome variables in the same way. Yet, consistently research has shown that all demographic characteristics studied do not relate similarly or equally to the outcome variables of interest (e.g., Riordan, 2000). For instance, age differences may relate to turnover (e.g., Wagner, et al., 1984) while tenure differences may have no such relationship (e.g., O'Reilly, Caldwell, & Barnett, 1989) or vice versa. One problem is that few studies have incorporated a wide array of demographic characteristics to fully investigate the different relationships (for notable exceptions see Jackson et al., 1991; Tsui et al., 1992), and those that do, have few counterparts with which to compare results. Past research has called for studies to include demographic characteristics other than those most commonly studied (age and tenure) (e.g., Tsui & Gutek, 1999). This study adds to those few studies, by incorporating a variety of demographic characteristics that employees may use



to compare themselves to their work community. That is, this study, while including the demographic characteristics most commonly studied (i.e., age and tenure), also includes gender, race, and part-time/full-time status. All characteristics included in this study either have exhibited a relationship to withdrawal behaviors in past studies at the individual (e.g., Hom, 1995) and/or at the individual-within-the-group level of analysis (e.g., Riordan, 2000).

Fourth and finally, past studies may show inconsistent results because researchers have examined the effects of demographic differences over varying lengths of time. Some studies have assessed the effects of demographic differences using cross-sectional data. Some have examined the effects of demographic differences over a short time span. And some have examined these effects over several years. Prior relational demographers who were able to perform research longitudinally (e.g., Wiersma & Bird, 1993) tended to take measurements one year then again years later, rather than assessing demographic differences repeatedly during this time. While this type of research is an advance over cross-sectional research, it may still provide skewed results. That is, in testing the relationship between demographic differences at Time 1 on employee behavior at Time 2, a researcher disregards changes in relational demography that may occur between Time 1 and Time 2. Typically, this time span is one to three years in which an employee undoubtedly experiences changes in his or her coworkers, supervisor, and/or customers. For example, turnover among an employee's coworkers is likely to result in changes in relational demography differences vis-à-vis different coworkers from Time 1 to Time 2. Employees who leave over the course of the study may have done so due to the hiring of demographically different employees or turnover of demographically similar employees

following the initial data collection. The potential influence of relational demography in fluid work groups may be underestimated or misinterpreted without a repeated measure longitudinal study.

This dissertation is one of the only studies, to my knowledge, to examine the breadth of demographic characteristics over individuals across multiple time periods. As in all of organizational behavior research, the relational demography literature is in need of longitudinal research (e.g., Tsui, Egan, & Xin, 1995). Longitudinal research may also enhance understanding of the relationship between relational demography and employee withdrawal behaviors by identifying the time when demographic differences most influence employee behaviors: Is the effect strongest after three months, six months, or one year, for example?

In summary, this dissertation was designed to help fill the holes in the literature by investigating the different and competing relationships between turnover and/or transfer and being different on any one of a multitude of demographic characteristics from one's co-workers, supervisor(s), or customers. By utilizing a large financial services dataset, over multiple time periods, my goal was to help determine the extent and nature – linear, asymmetric, or moderated – of the relationship between demographic differences and employee withdrawal behaviors.

### Theoretical Review

Most relational demography research is based on two main theoretical perspectives: (a) similarity-attraction theory (e.g., Byrne, 1971) and (b) self-categorization (e.g., Tjafel, 1981) and social identity theories (Turner & Associates, 1982). Below, I review these perspectives, providing the foundation for delineating the

three competing relationship models of relational demography and employee transfer and/or turnover.

*Similarity-attraction theory (Byrne, 1971)*

The gist of similarity-attraction theory is simply that people prefer and are attracted to like people. Namely, "...there is a tendency for the individual to be attracted to and select a person [to associate with] that is similar to them in some manner" (Dwyer, Richard, & Shepherd, 1998, p.56). Applied to the work setting, employees will tend to be attracted to and want to associate with co-workers, supervisors, and customers who are most similar to them. This interpersonal attraction to similar others is said to affect outcomes such as communication (e.g., Zenger & Lawrence, 1989) and turnover (e.g., McCain, O'Reilly, & Pfeffer, 1983).

Similarity-attraction theory suggests a positive *linear* relationship between demographic differences and withdrawal behaviors. That is, the more an individual differs from members of his/her work community, the more likely s/he is to withdraw from the work setting, by leaving the position or transferring. According to similarity-attraction theory, this linear relationship should apply equally for all work community referent groups. That is, the greater the differences between the employee and his or her co-workers, supervisor, and/or customers on any demographic characteristic, the more likely the employee is to engage in withdrawal behaviors.

*Self-categorization theory (Tjafel, 1981) and Social identity theory (Turner & associates, 1982)*

Researchers often draw on self-categorization and social identity theories in conjunction to explain the relationship between demographic differences and employee

behaviors. In this section, I summarize both theories, delineating all three competing relationship models: linear, asymmetric, and moderated by tenure.

According to self-categorization and social identity theories, individuals classify the self into categories, often on the basis of apparent or observable demographics such as race and gender (e.g., “I am female,” “I am Hispanic”) (Stangor, Lynch, Duan, & Glass, 1992). Individuals perform these self-categorizations as a means to locate themselves within the environment and to determine their social identity. *Social identity*, in turn, “...refers to an individual’s knowledge that s/he belongs to certain social groups and has the emotions and values that are linked to that social group” (Turner, 1982; as cited in Thatcher, Jehn, & Zanutto, 2003, p6).

Self-categorizations give rise to the individual forming a social identity with the chosen category group. By categorizing the self, the individual identifies with in-group individuals and categorizes dissimilar individuals into out-groups. As a result, self-categorization and social identity theory suggest that individuals will interact more with in-group members (i.e., those with whom one is most similar) and will dissociate from out-group members. Individuals who then form a social identity with the in-group, also experience increased cohesion, cooperation, communication, performance, and/or social integration with in-group members (e.g., Lembke & Wilson, 1998; O’Reilly, et al., 1989).

The process of self-categorization and social identity formation may lead individuals to outcast out-group members. As a result, out-group members within a community may exhibit withdrawal behaviors. For example, an individual who differs from his or her coworkers on a demographic characteristic would categorize his or her coworkers as outgroup members and would in turn be categorized by them as a member

of their outgroup. As a result, this individual would be unlikely to form a social identity with his or her coworkers (e.g., Tjafel & Turner, 1986). The absence of a shared social identity may lead the individual to leave the organization or to transfer to a new position, where presumably he or she would hope to find coworkers with whom he or she shared demographic characteristics and thus a social identity. Akin to similarity-attraction theory, these theories, therefore, have also been used to support a direct positive *linear* relationship between being demographically different and employee withdrawal behaviors. In sum, the first hypothesized relationship posited by these theories is that as demographic differences increase on any given demographic characteristic, transfer and/or turnover is also likely to increase.

What has often been overlooked in the seminal works outlining self-categorization theory and social identity theory (e.g., Tjafel & Turner, 1986) is that self-categorization and thus social identity are dynamic and thus may vary depending upon the context. Theorists such as Stangor et al., (1992) found that an individual may indeed classify him or her self into numerous categories (“I am Black, I am male, I am an accountant”), and this classification may change depending on the setting (Stangor et al., 1992). Three factors help to determine an individual’s active self-category: (a) *normative fit*; (b) what is *viewed positively*; and (c) what is *salient* (Stangor et al, 1992; Turner and colleagues, 1987). These criteria suggest that the relationship between relational demographic differences and employee withdrawal behavior may not be linear. Instead, the relationships may be asymmetric or, alternatively, moderated by tenure.

*Normative Fit and an Asymmetric Relationship for the Supervisor Referent Group.* The normative fit criterion of social identity theory refers to the extent to which

demographic similarities and differences between an individual and others within the social group conform to the individual's, and others' norms and expectations (Turner and associates, 1987). For instance, in the case of supervisor-subordinate relationships, the norm is for the supervisor to be older than the subordinate. When an individual differs from another person, and yet the difference is normative (e.g., an individual is younger than his or her supervisor), the individual may nevertheless identify with the individual(s) from whom he or she differs. That is, the subordinate may imagine him/her-self in that position in a few years when s/he is that age. If this age norm were deviated (i.e., the individual is older than his or her supervisor), the subordinate would not identify with the supervisor (e.g., Turner & associates 1987; Tsui & Gutek, 1999). Hence, employees who are younger than their supervisor may be unlikely to turnover or transfer, but employees who are older than their supervisor may be likely to turnover or transfer. In other words, there will be an asymmetric relationship between age distance from one's supervisor and employee withdrawal behaviors.

Based on the normative fit criterion, I suggest that demographic differences in tenure, race, and gender may also have an asymmetric relationship with employee withdrawal behaviors. That is, in supervisor-subordinate relationships, individuals' normative expectation is for supervisors to have more tenure, and although gradually changing, to be male and White. Hence, employees who are older, have more tenure, or are different from their supervisor and White or male, will engage in withdrawal behaviors. When employees are similar to the supervisor or dissimilar yet the supervisor fills the normative role (older, male, White, or more tenured), withdrawal behaviors are lessened. In sum, the second hypothesized relationship is that instead of a straight linear

relationship, the normative fit criterion suggests an *asymmetric* relationship for the supervisor-subordinate relationship in regards to age, tenure, race, and gender.

*Viewing the Category Positively and an Asymmetric Relationship for the Co-worker and Customer Referent Group.* Individuals need to view their self-category and social identity positively (Tjafel & Turner, 1986). Initial evidence suggests that certain minority groups (i.e., Blacks and females) may attempt to self-categorize with the majority when in a majority context (e.g., a female in a group of males, or a Black individual in a group of Whites) (e.g., Tsui, et al., 1992). For instance, a female in a group of all males may try to “Be one of the guys”, thereby minimizing the extent to which she perceives that she differs, and is perceived by others to differ, from the majority male group. By self-categorizing with the majority, minority group individuals may be viewed as and form social identities with in-group members. A male in a group of females, on the other hand, is unlikely to self-categorize with the females (i.e., there is no positive counterpart such as “Be one of the females”). As a result, males may be more likely to withdraw from female-dominated groups than females are to withdraw from male-dominated groups. This asymmetric relationship should apply to race differences for the co-worker referent group as well. That is, White employees are more likely to withdraw from groups dominated by non-Whites than non-White employees are to likely to withdraw from groups dominated by Whites.

This asymmetric relationship may also pertain to the customer referent group for both race and gender. Service employees may spend the majority of their time with customers rather than co-workers. As such, it may be that the employee primarily compares his/her self-categorization to the customers’ characteristics. Further, since the

interactions are likely to be short, it is likely that only the visible or readily apparent characteristics may be relevant in this relationship. Hence, similar to the co-worker scenarios, I predict that a Black or male employee providing service to primarily White or female clientele may be less likely to withdraw from the setting than is a White or female employee providing service to a primarily Black or male clientele.

In sum, the asymmetric hypothesized relationship for the co-worker and customer referent groups is that employee withdrawal behaviors increase when co-workers or customers are different from the employee and a racial minority or female. When co-workers or customers are similar to the employee or are dissimilar yet are in a positively viewed group (male, White), withdrawal behaviors are less likely.

*Salience and a Moderated Relationship.* Initially, individuals tend to focus only on visible characteristics (e.g., race, gender, age) when categorizing the self and others (e.g., Stangor et al., 1992; Tajfel, 1981). Since these characteristics are immediately apparent, or easily detectable, categorizing on these characteristics provides initial information about potential similarities or differences to the work community (e.g., Stangor et al., 1992). Over time, however, individuals may become better acquainted with group members and differences among job-related or less visible characteristic may be used for categorization (e.g., Harrison, Price, & Bell, 1998)<sup>2</sup>. For example, at first, other group members may be seemingly homogenous on visible characteristics (i.e., age, race, gender). In this situation, all members may be categorized into the in-group and employee withdrawal behaviors are curbed. However, over time, the employee may

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<sup>2</sup> Harrison et al.'s (1998) categorization of underlying characteristics referred to differences on individuals' attitudes, values, and knowledge. However, in keeping with Tsui & Gutek (1999), I view their underlying characteristics as pertaining to differences on psychological characteristics, not demographic characteristics. Hence, in this study, underlying characteristics consist of only demographic attributes.



become aware of differences on job-related characteristics (e.g., part-time/full-time status, organizational tenure). These job-related characteristics may reflect different knowledge and skill sets and may only become apparent to employees as they acquire more information with time spent with the referent groups. Further, as more time is spent with the referent groups, the initial perceptions may change as the stereotypes developed from the visible characteristics categorizations are replaced with more accurate information. The initial perception of similarities and differences based on visible characteristics in addition to a later revelation of similarities or differences based on job-related characteristics may result in a moderated by tenure relationship between demographic differences and withdrawal behaviors.

In other words, being different on a visible demographic characteristic (e.g., race, gender) may increase employee withdrawal behaviors early in an employee's tenure with the group, while being different on an job-related demographic characteristic (e.g., organizational tenure, part-time/full-time status) may increase employee withdrawal behaviors later in an employee's tenure. This moderated by tenure relationship is proposed to apply to both the co-worker and the supervisor referent groups. This relationship is not proposed to exist for the customer-employee relationship unless considerable time is spent with the customer to move beyond the visible characteristic influences.

In conclusion, utilizing similarity-attraction theory, self-categorization and social identity theories, I examine three relationship models between relational demography and employee behaviors: linear, asymmetric, and moderated by tenure. These different types of relationships may indeed be competing or it may be that certain models will apply to

certain characteristics and to certain referent groups. That is, will there be a straight linear relationship or will it be moderated by tenure? Or, will there be all three forms of the relationships depending on the referent group and/or demographic characteristic? One goal of this study was to help determine the best model(s) for predicting employee withdrawal behaviors. Studies supporting these three different types of relationships are discussed next, as are the specific hypotheses of this study.

### Literature Review of Three Relationship Models

Numerous studies have investigated the potential effects of demographic differences in the workforce. Below, I focus primarily on studies examining the relationship between relational demography and transfer, turnover, and turnover-related outcomes (e.g., turnover intentions, absences, commitment, and satisfaction). I also review demography studies performed at different levels of analysis or pertaining to other outcome variables if they show support or rival the two less studied relationship models (i.e., asymmetric and moderated by tenure). I arranged the review according to the three factors for self-categorization and social identity, which, in turn, posit the following hypothesized relationships: linear, moderated by tenure, and asymmetric. I also outline the hypotheses of this proposed study. First, however, I briefly review the demographic characteristics and specific withdrawal behaviors that are included in this study.

#### *Demographic Characteristics*

Individuals are composed of an amalgamation of demographic characteristics, with each characteristic serving as a potential basis for social identity. I was able to include a variety of demographic characteristics in this study. Past research has shown that, at the individual level of analysis, age, tenure, and gender predict turnover

tendencies (e.g., Cotton & Tuttle, 1986; Hom, 1995). As noted previously, relational demography -- an individual's characteristics within his/her context -- may be a better predictor of behavior than are simple demographic effects. Previous studies have found that differences in age, tenure, and gender are significantly related to a variety of employee behaviors (e.g., Riordan, 2000). Few, if any, studies have examined the potential influence of part-time/full-time status on employee behaviors. Yet, this lesser-studied characteristic may also help the individual categorize the self and others ("I am a part-time employee"), especially in the workforce. I hope that by including a variety of demography characteristics, this study helps discern the relationship between relational demography and employee withdrawal behaviors.

In this study, I examined the differences on the following relational demography characteristics: age, gender, race, branch tenure, organizational tenure, and part-time/full-time status. Further, I examined each of the above demography characteristics individually to assess its unique influence. For all hypotheses, the customer referent group included only age and race relational demography attributes. That is part-time/full-time status, tenure with the organization, and tenure with the group, are organization-related characteristics not applicable to them. Further, gender characteristics for the customer referent group, given the nature of gender make-up (i.e., typically 50/50), are likely not to vary between settings.

The empirical literature, as now established, provides very little basis to differentiate the relationship between these demography characteristics and a given outcome. For example, researchers generally have hypothesized the effects of, say, racial distance, on turnover to parallel the effects of, say, age or gender differences (e.g.,

Jackson et al, 1991; O'Reilly et al., 1989; Wagner et al., 1984). By using the different components of self-categorization and social identity theories, I explored the differential relationships between an employee's distance on certain demographic characteristics and withdrawal behaviors (i.e., linear, moderated by tenure and asymmetric models).

### *Withdrawal Behaviors*

Employees may choose to leave the organization when they differ from their work community. However, they may also opt to take less drastic measures; demographically different employees may, for example, simply transfer from the dissimilar work community. Hence, I examined the relationship between relational demography and two withdrawal behaviors: employee turnover and transfer. To my knowledge, no studies have examined the relationship between relational demography and transfer. Moreover, only four relational demography studies have directly examined the relationship between demographic differences and actual turnover of the employee (Jackson, et al., 1991; O'Reilly, et al., 1989; Wagner et al., 1984; Wiersma & Bird, 1993). In addition, of these turnover studies performed, only the co-worker referent group has been examined. In sum, with only four published studies investigating the relationship between relational demography and individual turnover (Jackson, et al., 1991; O'Reilly, et al., 1989; Wagner et al., 1984; Wiersma & Bird, 1993), and none on transfer, it is not surprising that little has been gleaned from the research pertaining to employee withdrawal behaviors.

With so few turnover studies from which I can use to support my hypotheses, I also include a review of studies pertaining to turnover-related outcomes (i.e., absences, intentions to quit, organizational commitment, and job satisfaction). In the next section I review this limited literature, examining studies relevant to each of the three potentially

competing relationship models (see Table 1 for an overview of these studies), and propose the hypotheses I tested in this dissertation.

### *Linear Relationship Review and Hypotheses*

All the theories reviewed, similarity-attraction, self-categorization, and social identity, suggest that demographic differences may have a positive linear relationship with employee withdrawal behaviors. That is, one who is different from most members of the group on any given characteristic will be more likely to withdraw from the group than will one who is similar to most members of the group on this demographic characteristic. The vast majority of prior relational demography studies have investigated this linear relationship.

As noted, only four studies have assessed the influence of relational demography on actual individual-level turnover. All four studies examined co-workers as the referent group (Jackson et al, 1991; O'Reilly, et al., 1989; Wagner, et al., 1984; Wiersma & Bird, 1993). To my knowledge, no published studies have examined the influence that differences from one's supervisor or customers may have on turnover. Of the studies that examined turnover, all obtained the demographic variables at one time, and then related the employee's distance to the group to turnover between three to five years later. No consideration was made for new members to the group (and hence new distance measures) or the year in which the employee left. Even with these limitations, all these studies found support for a linear relationship for at least one of their demographic characteristics.

*Actual Turnover (Linear).* Past research has examined the relationship between turnover and being different from one's co-workers on six demographic characteristics

(age, branch tenure, organizational tenure, military experience, industry experience, and education). This research has provided mixed support for a direct, positive, linear relationship.

Studies on being different from one's co-workers in relation to *age* found age differences to both significantly positively relate to turnover (O'Reilly, et al., 1989; Wagner, et al., 1984), as well as to have no significant relationship with it (Jackson et al., 1992). Further, studies have not found a relationship between either *group* or *organizational tenure* differences from co-workers and turnover (Jackson et al., 1992; O'Reilly et al., 1989). On the other hand, Jackson, et al. (1992) incorporated two unique forms of tenure: experience outside the industry, and military experience. While differences on military experience were not significantly related to turnover, they found that differences on industry experience were significantly positively related to turnover. Finally, research on being different from one's co-workers on the level/type of *education* yielded a significant positive relationship with turnover (Jackson et al., 1992; Wiersma & Bird, 1993). In sum, only differences from co-workers on education consistently related to increased turnover, while age and tenure differences provided conflicting results.

*Turnover-related outcomes (Linear).* Seven published studies investigated the relationship between relational demography and turnover-related outcomes. These researchers investigated whether being different from one's co-workers or supervisors on any demography characteristic would relate to higher frequency of absences (Perry, Kulik, & Zhou, 1999; Tsui, et al., 1992), higher intentions to quit (Tsui, et al., 1992), lower satisfaction (Barsade, Ward, Turner, & Sonnenfeld, 2000; Weslowski & Mossholder, 1997), and/or lower commitment (McNeilly & Russ, 2000; Riordan &

Shore, 1997; Shore, Cleveland, & Goldberg, 2003; Tsui, et al., 1992). Support for a direct linear relationship among these outcome variables has also been inconsistent.

Tsui et al., (1992) found that age differences from one's co-workers are significantly positively related to intentions to quit, but are not related to commitment or self-reported absences (Tsui et al., 1992). Further, they found that race differences from one's co-workers significantly positively related to intentions to quit and self-reported absences, as well as significantly negatively related to commitment (Tsui, et al., 1992). Research on being different from one's co-workers on education has also yielded mixed results. Barsade, et al., (2000) found that education differences from one's co-workers significantly related to less satisfaction, while Wesolowski and Mossholder (1997) found no significant relationship. In addition, Tsui, et al., (1992) found that education differences from co-workers were not significantly linearly related to commitment or self-reported absences. Studies have also found no significant linear relationship between branch tenure or gender differences from one's co-workers and commitment (Riordan & Shore, 1997, Tsui, et al., 1992) or self-reported absences (Tsui, et al., 1992). Further, counter to predictions, organizational tenure differences related to *increased* not decreased job satisfaction (Barsade, et al., 2000) *less* not more self-reported absences (Tsui et al., 1992), and exhibited no significant linear relationship with commitment (Riordan & Shore, 1997; Tsui, et al., 1992). In sum, for the co-worker referent group, research has shown that age, race, organizational tenure, and education differences have contradicting results while gender and branch tenure differences have no linear relationship with employee withdrawal behavior.

Several studies also investigated these relationships for the supervisor referent group. Some researchers have found that age difference from one's supervisor is significantly negatively related to commitment (Shore, et al., 2003) and to satisfaction (Shore et al., 2003). Others have found no significant relationship between age difference from the supervisor and commitment (McNeilly, & Russ, 2000), satisfaction (Wesolowski & Mossholder, 1997), or frequency of absences (Perry, et al., 1999). Gender differences from one's supervisor also led to inconsistent results. Namely, gender difference from the supervisor significantly related to lower commitment (McNeilly, & Russ, 2000) but had no significant linear relationship with satisfaction (Wesolowski & Mossholder, 1997). Education difference from the supervisor (unlike that with co-workers) was not related to either commitment (McNeilly & Russ, 2000) or satisfaction (Wesolowski & Mossholder, 19937). Finally, racial difference from the supervisor related to less satisfaction (Wesolowski & Mossholder, 1997).

In sum, no demographic characteristic has exhibited a consistent linear relationship across any of the outcomes or referent groups. On the other hand, there is partial support for a linear relationship. Unfortunately, there is no clear or apparent reason for the inconsistent findings. It may be that instead of a linear relationship, a moderated by tenure or asymmetric relationship may be operating for some characteristics. However, because some support exists, particularly for age and race differences, and theoretically, a linear relationship is hypothesized, I tested the potential for a direct linear relationship between differences on demographic characteristics and turnover. Further, I wanted to compare a linear model to both the moderated by tenure and asymmetric relationship models.



H1: The greater the distance between an employee and the members of his or her work community ((a) co-workers; (b) supervisor(s); (c) customers) on any relevant demographic characteristic, the more likely the employee is to *turnover* from his or her work unit.

*Transfer (Linear).* Again, to my knowledge, no studies have examined the relationship between demography differences and transfer. However, theoretically, the relationship should coincide with the turnover hypothesis. Hence, I apply the same linear relationship to the transfer outcome.

H2: The greater the distance between an employee and the members of his or her work community ((a) co-workers; (b) supervisor(s); (c) customers) on any relevant demographic characteristic, the more likely the employee is to *transfer* from his or her work unit.

*Moderated by Tenure Relationship Review and Hypotheses*

As noted above, self-categorization and social identity theories also suggest that the relationship between demographic differences and withdrawal behaviors may be moderated by branch tenure. Individuals initially may use characteristics that are salient to categorize the self and others. Hence, differences on the more visible characteristics (e.g., race, age, gender) may lead to increased withdrawal behavior in the early months of an employee's branch tenure, or during the initial formation of one's social identity with that group (e.g., Harrison, et al., 1998). However, over time, as the employee obtains more information about work community members, these visible characteristics may become less important, and job-related differences may begin to become perceptible and influential. These job-related characteristics (e.g., organizational tenure, part-time/full-

time status) may then be used to form a new basis of one's social identity. Therefore, these theories also suggest that the relationship between demographic differences and withdrawal behaviors is moderated by an employee's tenure with the group.

Unfortunately, few studies have investigated this relationship, either at the individual-within-the-group or group level of analysis. Further, I know of no study that has examined this relationship for the supervisor or customer referent group. Hence, I review studies that appear to provide initial support for this type of relationship.

*Actual Turnover (Moderated).* Only one study that I am aware of has investigated this type of relationship with actual turnover, although it was at the group level of analysis. Wagner, Pfeffer, and O'Reilly (1984) found that branch tenure diversity was significantly positively related to group turnover and that this relationship was stronger in groups with shorter average tenure than in groups with longer average tenure.

*Turnover-related outcomes (Moderated).* Chatman and Flynn (2001) found partial support for a moderated by tenure relationship. They found, across two samples (MBA students and financial service officers), that the relationship between demographic distance (on an index comprised of citizenship, race, and gender differences) and perceptions of cooperative norms waned over time. That is, initially, demography differences were associated with perceptions of less cooperative norms. As the group spent more time together, these perceptions, based on visible characteristic differences, lessened.

Tsui et al., (1992), in a cross-sectional study, also provided preliminary support for a moderated by tenure relationship. They hypothesized that differences on age, gender, and race (e.g., visible characteristics) would more strongly relate to intentions to

stay, commitment, and self-reported absences than the underlying characteristics of education and tenure. They found that differences from co-workers on gender and race (visible characteristics) had larger correlations with intentions to stay, commitment, and self-reported absences than did education or tenure. Unfortunately, they did not investigate the influence of tenure in moderating this relationship, but rather, using a cross-sectional design, compared the strength of these different relationships. Nonetheless, they did lend support to the notion that demographic differences along the visible/job-related typology may differentially relate to employee withdrawal behaviors.

At the group level of analysis, three studies also provide preliminary support for a moderated by tenure model. Harrison, Price, and Bell (1998) found that differences on visible characteristics (i.e., age, ethnicity, gender differences) significantly negatively related to group cohesion initially. However over time, differences on deeper- level characteristics (i.e., satisfaction and organizational commitment) exhibited a stronger significant negative relationship with group cohesion. Similarly, Watson, Kumar, and Michaelsen (1993) found that ethnically homogenous groups of undergraduate students were more effective early in branch tenure, but that both homogenous and heterogeneous groups became equally effective over time. Moreover, the heterogeneous groups ended up performing better than homogenous groups after four months (i.e., providing more/better alternative solutions). Finally, Pelled, Eisenhardt, and Xin (1999) found that team racial diversity, organizational tenure diversity, and functional background diversity (both visible and job-related characteristics) each were significantly positively related to team conflict, but that the relationship between these characteristics and conflict waned as the group's tenure increased.

In sum, these studies lend support to the prediction that tenure moderates the relationship between employee demographic differences from coworkers and the supervisor and employee withdrawal behaviors. No moderated hypotheses will be made in relation to the customer referent group, as there are no relevant job-related characteristics for the customer (i.e., part-time/full-time status, organizational tenure, branch tenure).

H3: The employee's branch tenure moderates the relationship between employee demographic distance (from a) coworkers; and, b) the supervisor) and employee turnover. That is, the shorter an employee's tenure within the group, the stronger the positive relationship between employee demographic distance on visible characteristics from coworkers or the supervisor and employee withdrawal.

*Transfer (Moderated).* Again, to my knowledge, no studies have examined whether tenure moderates the relationship between employee demographic distance and employee transfer. However, based on the theoretical arguments summarized above, I tested the following hypothesis:

H4: The employee's branch tenure moderates the relationship between employee demographic distance (from a) coworkers; and, b) the supervisor) and employee transfer. That is, the shorter an employee's tenure within the group, the stronger the positive relationship between employee demographic distance from coworkers or the supervisor on visible characteristics and employee transfer.

#### *Asymmetric Relationship Review and Hypotheses*

The normative fit criterion of self-categorization and social identity theories also suggest that, for certain characteristics, the relationship between demographic differences

and withdrawal behaviors may be asymmetric. That is, I hypothesized that the relationship between demography differences and withdrawal behaviors may be stronger for majority group individuals when in minority group contexts. Several studies have investigated this relationship and found preliminary support.

*Turnover and turnover-related outcomes (Asymmetric).* No studies, to my knowledge, have examined this type of relationship with actual turnover, however several studies have examined an asymmetric relationship between demographic differences and turnover-related outcomes (e.g., Perry et al., 1999).

Research investigating an asymmetric relationship between race and gender differences from one's co-workers and turnover-related outcomes has consistently yielded significant results. That is, studies found that White employees in non-White groups had lower intentions to stay (Tsui et al., 1992), commitment (Mueller, Finley, Iverson, & Price, 1999; Riordan & Shore, 1997; Tsui et al., 1992), self-reported absences (Tsui, et al., 1992), and satisfaction (Mueller et al., 1999) than non-White employees in White groups. Similarly, studies found that male employees in mostly female groups had lower intentions to stay (Tsui et al., 1992), commitment (Tsui et al., 1992), self-reported absences (Tsui, et al, 1992), and satisfaction (Konrad, Winter, & Gutek, 1992), than female employees in mostly male groups.

Several studies have also provided support of an asymmetrical relationship between turnover-related outcomes and differences from the supervisor referent group on race (Tsui & O'Reilly, 1989; Vecchio & Bullis, 2000), age (Tsui, Porter, & Egan, 2002), and job tenure (Tsui, et al., 2002). Similar to the co-worker referent group, these studies found that White employees with non-White supervisors report higher role conflict (Tsui

& O'Reilly, 1989), and lower satisfaction with leadership (Vecchio & Bullis, 2000) than non-White employees with White supervisors. Moreover, employees who were either older or had more job tenure than their supervisor, were rated lower on performance than employees who were younger or had less job tenure (Tsui, et al., 2002).

Perry et al., (1999) found an asymmetric relationship between age differences and absences, but in the opposite direction. That is, they found that an employee who was older (not younger) than his/her supervisor was absent less frequently than an employee who was similar in age or younger. Perry et al., (1999) provided two possible explanations for this contradictory finding. First, in their sample, the older subordinates may have felt the need to show up to work more frequently to demonstrate their competence and/or worth to their younger supervisor. Second, the older subordinates may have felt the need to fill in the gaps in the younger supervisor's training and skill set, and therefore was absent less frequently.

In sum, these studies provide preliminary support for an asymmetric relationship, depending on the characteristic and the referent group of interest. For the co-worker referent group relationship, White and male employees tend to exhibit more turnover-related behaviors when in non-White or mostly female groups, respectively. For the supervisor referent group relationship, older, White, or more tenured subordinates tend to exhibit more turnover-related behaviors when they have younger, non-White, or less tenured supervisors, respectively. Akin to the co-worker referent group, I also predicted this relationship to apply to gender differences from the supervisor referent group. That is, I predicted that male subordinates with female supervisors would exhibit more withdrawal behaviors than will female subordinates with male supervisors. To my

knowledge, no studies have investigated whether the relationship between employee demographic distance from customers and employee withdrawal behaviors may also be asymmetric. However, in a service setting, customers may have as much interaction with the employee as co-workers. Hence, a similar asymmetric relationship may exist between customer demographic differences and withdrawal behaviors. Namely, I predicted that White employees would exhibit more withdrawal behaviors when serving mostly non-White customers than will non-White employees serving mostly White customers. In conclusion, I tested the following hypotheses:

H5: The greater the distance between an employee and the members of his or her work community, the more likely the employee is to turnover if he or she is different from his or her a) coworkers and White or male; b) supervisor and White, male, more tenured, or older; c) customers and White.

*Transfer (Asymmetric).* Finally, as in the previous types of relationships, I know of no studies that have examined an asymmetric relationship between relational demography differences and transfer. Utilizing the theory and backings from the studies for turnover-related outcomes, I predicted similar asymmetric hypotheses for the relationship between demographic differences and transfer.

H6: The greater the distance between an employee and the members of his or her work community, the more likely the employee is to transfer if he or she is different from his or her a) coworkers and White or male; b) supervisor and White, male, more tenured, or older; c) customers and White.

### *Additional Transfer Hypothesis*

Due to the dearth of research on employee transfer, I also explored a general hypothesis regarding relational demography differences and transfer. Namely, I predicted an employee would transfer to a location where the work community demographic characteristics would be more similar to his or her own.

H7: Employees transfer to units with more similar work communities (i.e., a) co-workers; b) supervisors; or, c) customers).

### *Longitudinal Examination*

In order to test the three competing relationship models I first had to explore the time interval in which relational demography had the strongest influence. As mentioned, one of the goals of this study was to investigate the time interval in which demography distance was most strongly related to transfer and/or turnover. As there is no theoretical reason to believe in a specific time span, I explored the strength of this relationship from one to six months, nine months, and one year later. These time spans were chosen in hopes of uncovering the period in which demographic differences had the strongest relationship with transfer and turnover. I had no hypothesis pertaining to the time interval, but rather needed to explore the longitudinal influence in order to best test the three relationship models.

In conclusion, similarity-attraction theory, self-categorization theory, and social identity theory suggest that the relationship between an employee's demographic distance from his or her work community and employee withdrawal may be linear, asymmetric, or moderated by tenure. However, the evidence has been mixed and even contradicting at times. That is, depending on the demographic characteristic, the level of analysis, and the



outcome, all types of relationships have received some support. In this study, I delved deeper into these different relationship models to further decipher the relationship between demographic differences and withdrawal behaviors: turnover and transfer. All hypothesized relationships are summarized in Table 6.

## Method

### *Sample*

I was given temporary access<sup>3</sup> to archival personnel data from a large Midwestern financial organization. These employee personnel records were recorded on a monthly basis from January 2001 to May 2002. From this dataset, I selected employee personnel records based on several criteria. First, because the customer was a relevant referent group for my hypotheses, I included only employees in branch banking locations, as their jobs were more service oriented than jobs in other locations.

Second, due to the nature of archival data, several locations were coded as branch locations yet had a large number of employees (e.g., 300 employees). According to Celent Communications (2005), the average number of employees in a bank branch is generally between 25-30. Hence, I concluded that these locations were coding errors, rather than actual bank branches. Further, by examining the average size of most branches in the organization, I decided to only include branch locations where, on average during the study period, 3-30 employees were employed. I selected the upper limit of average employees over time to be no more than 30 to coincide with the standard bank size and because an employee may not know the characteristics of his/her co-workers when the group is consistently larger than 30 members. Further, I selected only

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<sup>3</sup> Due to the highly confidential nature of the data, Mercer Human Resource Consulting, with permission from the financial organization, granted me a 90-day window to analyze the dataset.

branch locations that maintained at least 3 employees across the study period because branches with fewer than three workers were not considered a group.

Finally, I also allowed the maximum number of employees per branch location in any given month to be 35 employees. That is, by examining the number of employees in the branch locations based on the aforementioned criteria, I concluded that setting an upper limit of 35 employees in any given month would help eliminate any locations that were not actually bank branches or were coding errors. For instance, branches that had 70 employees one month and 15 the next were assumed to have coding errors and were eliminated from the dataset.

Based on these criteria, I was able to retain 81% of the coded branch locations for a total of 1,061 locations over the seventeen months. There were 13,390 employees employed during the study period with an average branch size per month of 9.74 employees ( $SD = 4.37$ ). Of these employees, 1,077 were supervisors, and 12,313 were coworkers. The coworkers group consisted of 88% female, and 71% full-time. Further, they were 84% White, 12% Black, 1.7% Asian, 1.7% Hispanic, and approximately 1% Native American. The supervisors were 73% female and 99% full-time. Supervisors were less racially diverse, with 92% White, 6% Black, 1.5% Asian, 1.5% Hispanic, and 1% Native Americans.

### *Measures*

*Coworker Relational Demography Measures.* I computed the employee's age, branch tenure, and organizational tenure distance from his/her coworkers with the oft-used Euclidean distance formula or D-score (Tsui et al., 1992). This distance score is the "square root of summed squared differences between an individual  $S_i$ 's value on a

specific demographic variable and the value on the same variable for every other individual  $S_j$ , in the sample for the work unit, divided by the total number of [group members] in the unit ( $n$ )” (Tsui, et al., 1992, p.562).

$$D = [(1/n)(\sum \{S_i - S_j\}^2)]^{1/2}$$

Gender, part-time/full-time status, and race distance scores from one’s coworkers were computed using  $D^2$  rather than  $D$ . According to Williams and Mean (2004), the  $D$ -score is inappropriate when examining the distance of dichotomous variables. That is, in the  $D$ -score formula, squaring the difference between two individuals ( $S_i - S_j$ ) on a dichotomous characteristic is equivalent to taking the absolute value of  $\pm 1$ . Hence the scale will not change by being squared and therefore one should not then take the square root of the sum of these squared differences (Williams & Mean, 2004).

For dichotomous variables,  $D^2$  is equivalent to the proportion dissimilar (Williams & Mean, 2004). For instance, a woman in a group of 3 men and 6 women, would have a  $D^2$  score of  $(0^2 + 0^2 + 0^2 + 0^2 + 0^2 + 1^2 + 1^2 + 1^2)/9 = 3/9 = .33$  or would be dissimilar from approximately 33% of the group. I applied this formula for race by making race dichotomous. More specifically, employees were categorized into five races: White, Black, Hispanic, Asian, or Native American. If the coworker pair was of the same race (e.g., both Hispanic), the pair was coded as 0 or not different, while if they were of different races (e.g., Hispanic and Asian), the pair was coded as a 1. In sum, this proportion dissimilar or  $D^2$  was used for gender, part-time/full-time status, and race.

*Supervisor Relational Demography Measures.* I computed the distance from one’s supervisor on the continuous variables of age, organizational tenure, and branch

tenure by taking the absolute value of the difference between their attribute values (e.g., McNeilly & Russ, 2000; Perry et al., 1999).

Gender, race, and full-time/part-time status differences from one's supervisor were coded as 0 when they shared the same characteristic and 1 when the supervisor and employee were different from one another (e.g., McNeilly & Russ, 2000; Tsui, Porter, & Egan, 2002).

*Customer Relational Demography Measures.* Actual branch customer data were not available. I instead obtained data regarding the demographic characteristics of the residents of the zip code in which the branch was located. These data were used as a proxy to actual customer information. The assumption was that most individuals choose to bank at a branch that is close to their home. Therefore, the population in a given zip code should be a relatively accurate proxy for actual customer demographic characteristic make-up (i.e., if the zip code is demographically diverse, customers should be as well, while if a zip code is demographically homogeneous, customers characteristics should also coincide).

Using data acquired from the 2000 Census, I obtained proxy customer age and race data. Customers' organizational tenure, branch tenure, and part-time/full-time status were not relevant characteristics to the employee for this dissertation, so this information was not obtained. Further, as expected, gender proportions within a zip code were, on average, equally split (50% male, 50% female), and hence were not included.

The Census data provided the proportion of the population in a zip code that was estimated to belong to each age and race category. The Census provided the proportion of the population in sets of age categories (e.g., 18-24, 25-34, 35-44 etc). Employees'

distance from customers was equal to the proportion dissimilar from their age category within the branch zip code. For example, a 33 year old employee's distance from the customer is equivalent to the proportion of individuals over the age of 18 within the branch zip code who were not 25-34 years old. Similarly, race distance from the customer was equal to the proportion of individuals within the branch zip code who were not of the same race (i.e., White, Asian, Black, Hispanic, or Native American).

In summary, each employee had 14 distance scores computed. That is, for each of the six demographic characteristics, I computed a distance score for the relevant characteristic for the three referent groups: co-workers, supervisor(s), and customers. As noted, there were no distance scores for the employee-customer branch tenure, organizational tenure, part-time/full-time status, or gender differences. All measures were scaled such that higher values indicate more distance from the referent group.

*Dependent Variables.* *Voluntary turnover* occurs when the employee leaves the organization voluntarily. Turnover was coded dichotomously; 1 = voluntarily left the organization, and 0 = remains with the organization. Other forms of turnover (e.g., retirement, involuntary) were included in the dataset but were not coded as voluntary turnover. *Transfer* was coded dichotomously as well; 1 = the employee transferred from one branch location to another, and 0 = did not transfer. Employees merely filling in at another branch temporarily were not considered transferred. Only those employees who officially had their personnel records transferred to another branch location were considered transferred.

*Moderator Variable.* An employee's *branch tenure* was the employee's tenure with his or her current branch. For the supervisor referent group moderated relationships,

the *employee's tenure with the supervisor* was used rather than the employee's branch tenure. These two tenure values were equivalent except in the case when the supervisor joined the branch after the employee.

*Control Variables.* I also included several control variables. First, I included the *simple demographic variables*, age, gender (1=female, 0=male), race (1=white, 0=nonwhite), organizational tenure, branch tenure, and full-time/part-time (FT/PT) status (1=full-time, 0=part-time), to verify that the relational demography scores predicted above and beyond the simple demography characteristics. Second, I included the employee's approximate *distance to work*. I controlled for distance to work because employees may transfer or voluntarily turnover out of a desire to find a job/branch closer to home. I also controlled for *branch size* as branch size may increase/decrease the potential for diversity within the group. Further, I included a *time period indicator* to control for different turnover rates over the months of the longitudinal data. Finally, I also included the monthly *unemployment rate* of the county in which the branch was located. This information, taken from the Current Population Survey, was obtained from the Bureau of Labor Statistics, who provides unemployment rates within counties. I included unemployment rates because research has shown that as unemployment rates rise (i.e., indicating a scarcity of jobs available), withdrawal behaviors such as turnover decrease (e.g., Terborg & Lee, 1984).

### Analyses

The longitudinal dataset consisted of one record per month for each employee. Over the seventeen months there were 13,390 employees employed with the bank, culminating in a total of 154,385 person-month records. Thus, an employee who left the

organization three months after getting hired had three person-month records; while someone who stayed with the bank for the entire study duration had 17 person-month records (see sample data in Table 2). This data set had an average monthly voluntary turnover rate of 1.6%. In addition, the average monthly transfer rate was 1.5%. All analyses were performed on this person-month dataset using SAS software package.

I primarily used logistic regression for the analyses, as the dependent variables were dichotomous. I also investigated the potential to use survival analysis to analyze these relationships, however due to the nature of the data, this was not possible. That is, when the predictors vary over time (i.e., relational demography measures change month-to-month), and when there are many ties in the dependent variable (i.e., people leave at the same time or month), it is recommended that one uses this type of logistic regression over the standard survival analysis (see Allison, 1995). However, by utilizing a person-month dataset, these logistic regressions are considered a form of survival analysis (see Allison, 1995).

Each logistic regression was programmed to predict the odds of an event (i.e., turnover or transfer) occurring. To investigate the relationship between relational demography and turnover using longitudinal data, I first had to create a lag variable for all predictors. For instance, to predict the following month's turnover, I used the previous month's values for each predictor variable to regress on turnover and transfer. That is, I created one-month lag variables for all of the aforementioned relational demography and control variables. As such, I predicted the odds of the employee leaving the organization or transferring to another branch the following month, for each month she or he was employed during the study period.

The nature of the dataset, consisting of multiple records per individuals, may raise the question of the legitimacy of analyzing this data without violating the maximum likelihood function assumption of independence of observations. However, the concern about independence is not applicable for this logistic regression analysis (Allison, 1995). That is, the logistic regression likelihood function consists of a product of probabilities, such that an individual's probability of leaving the organization during, say, time 5 could be expressed as

$$\Pr(T_i=5) = P_{i5}(1-P_{i4})(1-P_{i3})(1-P_{i2})(1-P_{i1})$$

“...where  $P_{it}$  is the conditional probability of an event at time  $t$ , given that an event has not already occurred...Each of the five terms in the above equation may be treated as though they came from a distinct, independent observation” (Allison, 1995, p. 223). As such, the independence assumption is not violated (see Allison, 1995 for a more thorough explanation).

To compare the different models, I relied on three main statistics: Log Likelihood  $\chi^2$ , Pseudo  $R^2$ , and Max Rescaled  $R^2$ . I briefly review each of these statistics. The Log Likelihood  $\chi^2$  compares the fit of the predicted model to the fit of a null or intercept only model. If the predicted model is a better fit than the intercept only model, the  $\chi^2$  will be large and significant. The Pseudo  $R^2$  is similar but not equivalent to  $R^2$  in standard ordinary least squares regressions, and may be considered to represent the strength of the association between the predictors and the dependent variable. It is equal to the Log Likelihood  $\chi^2 / (\text{Log Likelihood } \chi^2 + N)$ , where  $N$  is the sample size. SAS provides this value based on the given sample size – in this case person-months. However, when analyzing person-months, the  $N$  should actually be equal to the number of unique



individuals. Hence, I report the corrected  $R^2$  values. The Pseudo  $R^2$  has an upper bound less than 1 since the dependent variable is dichotomous. That is, at its maximum, the dependent variable would be split 50-50, however since the frequency of the dependent variable is typically less than this, as was the case in this study, its upper bound is less than 1. To correct for this limit, the max-rescaled  $R^2$  is calculated, and ranges from 0-1. This max-rescaled  $R^2$  is the Pseudo  $R^2$  divided by its upper bound or maximum of the  $R^2$ . The maximum  $R^2$  is simply the upper bound of  $R^2$  for the logistic regression equation. To compare the models, therefore, I primarily examined changes in the max-rescaled  $R^2$ .

## Results

### *Descriptive Statistics*

The means, standard deviations, and correlations among the measures for the coworker referent group are shown in Table 3. Comparable statistics are available for the supervisor and customer referent groups in Table 4 and 5 respectively.

### *Time Interval*

Before testing my hypotheses, I explored the time interval in which relational demography might have the strongest relationship with employee withdrawal behavior. In order to do this, I computed each employee's distance to the referent group one, two, three, four, five, six, nine and twelve months prior to the turnover variable. These lagged distance scores were entered into the logistic regression equations to determine which lagged distance score best predicted turnover.

I examined the  $R^2$ , max-rescaled  $R^2$ , and maximum  $R^2$  values for these regressions for all three referent groups. Based on these three measures, the one, two, and three-month lag regressions appeared to have the highest or best fit values across the

referent groups (see Figures 1-3 for the coworker, supervisor, and customer referent group respectively). I then performed a regression including the one, two and three-month lag variables simultaneously. With all three time lag variables included, only the one-month lag variables remained significant (results not shown). Consequently, I performed all further analyses using a one-month lag<sup>4</sup>.

### *Multicollinearity*

Prior to running the logistic regression analyses, I checked to see if multicollinearity may be a problem in my data. Since I was including similar variables, such as organizational tenure and branch tenure, I was concerned that there may be high correlations between certain variables. SAS does not provide multicollinearity diagnostics for logistic regression, therefore I performed several ordinary least squares regressions to obtain collinearity diagnostics. Collinearity diagnostics solely examine the predictor variables, so while I could not use the regression coefficients obtained, I was able to analyze the collinearity results.

Tolerance, a multicollinearity diagnostic, is equal to 1 minus the  $R^2$  obtained from the regression of the other predictor variables in the model on that variable. If a variable is highly related to the other variables, the tolerance approaches 0. Hence, low tolerance values correspond to high multicollinearity (Allison, 1999). While no established tolerance level indicates a multicollinearity problem, some say a problem may exist when tolerance levels fall below .40 (Allison, 1999), while others opt for a less stringent value

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<sup>4</sup> I also performed preliminary logistic regression analyses using a quarterly dataset. The results did not change substantially, however I did lose turnover cases for those who were hired and quit within the three-month period. Therefore, I choose to keep all analyses performed at the monthly level.

of .10 (Hair, Anderson, Tatham, & Black, 1998). I decided to choose a value in the middle, .25 as a cutoff for delineating a potential multicollinearity problem.

Unfortunately, there were several variables in my dataset with very low tolerance levels. First, across all referent groups, the simple demographic variables, organizational tenure and branch tenure, both had low tolerance values (approximately .15). They were significantly and positively correlated ( $r = .90, p < .01$ ). This relationship was not surprising given that many employees stayed with one branch the entire duration of their employment with the bank. Second, and related, coworker organizational tenure and branch tenure distance also had low tolerance values (.15 each). They, too, were significantly correlated ( $r = .90, p < .01$ ). Finally, for the supervisor referent group, the FT/PT status and the FT/PT status distance variable from one's supervisor had low tolerance values (.05) and were significantly correlated ( $r = -.97, p < .01$ ). This strong relationship was primarily due to the fact that few supervisors were part-time employees.

There is no easy solution when dealing with multicollinearity in one's data (Fox, 1991). First, since organizational tenure and branch tenure overlapped substantially, and I had hypotheses surrounding branch tenure, I decided to drop organizational tenure from all logistic regression analyses. Similarly, I opted to drop organizational tenure distance rather than branch tenure distance for all relevant referent groups. Finally, I dropped the simple demographic variable FT/PT status for the supervisor referent group. Since I was primarily interested in the relationship of the relational demography variables, I opted to drop this variable over the distance variable. In addition, for the few situations in which the supervisor was a part-time employee, I wished to investigate the relationship between distance from the supervisor had on employee turnover or transfer, rather than just the

employees FT/PT status. Upon rerunning the multicollinearity diagnostics with the remaining variables, all tolerance levels were above .25.

### *Hypothesis 1 & 2 – Linear Relationships*

The linear hypotheses investigate whether greater demographic differences from the work community increase the likelihood the employee will turnover (H1a-c) or transfer (H2a-c). To test these linear hypotheses two logistic regressions were performed for each referent group. In the base model, I entered only the control variables: simple demographic variables, unemployment rate, distance to work, branch size, and time period. The second model tested the hypothesis by adding the one-month lagged relational demography variables for the referent group of interest. The base models for the coworker and customer referent groups were the same. The values changed slightly for the supervisor referent group because, for this group, I omitted the simple demographic characteristic, FT/PT status. Most estimates remain approximately the same, though gender lost significance for the supervisor referent group. As this is primarily the only difference, I discuss the results for the coworker and customer referent groups.

The data fit the base model predicting turnover adequately,  $\chi^2(9) = 1440.91, p < .01, R^2 = .126^5$ . All of the control variables in the base turnover model, except race, significantly related to turnover in expected directions. More specifically, older employees and more branch tenured employees were less likely to turnover ( $p < .01$ ). Females and full-time employees were also less likely to turnover ( $p < .05$ ). Finally, as

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<sup>5</sup> All  $R^2$  values reported are the max-rescaled  $R^2$ .

expected, those who lived further from work, or lived in places with low unemployment rates were more likely to turnover ( $p < .01$ ).

The base models predicting transfer also had moderate fit,  $\chi^2(9) = 642.10, p < .01, R^2 = .062$ . All control variables, except race, significantly related to transfer for all referent groups ( $p < .05$ ). The direction of the relationships were the same as in the base turnover model, except FT/PT status changed direction such that full-time employees were more likely to transfer ( $\beta = .58, p < .01$ ), though less likely to turnover ( $\beta = -.69, p < .01$ ).

*Hypothesis 1a: Linear Relationship between Coworker Distance and Turnover.*

The turnover logistic regression results for the coworker referent group are summarized in Table 7. Examining the linear model, the  $R^2$  increased slightly from the base model ( $\Delta R^2 = .003$ ) and the model fit is still significant ( $\chi^2(14) = 1476.27, p < .01$ ). Four of the five relational demography measures were significantly related to employee voluntary turnover ( $p < .05$ ). Race and gender distance related to turnover in the hypothesized direction. That is, the larger the distance between the employee and his or her coworkers on race or gender, the more likely she or he was to leave the organization. The relationship between turnover and both full-time/part-time status distance and branch tenure distance was opposite than hypothesized. That is, the greater the distance from one's coworkers on FT/PT status or branch tenure, the less likely one was to turnover.

*Hypothesis 1b: Linear Relationship between Supervisor Distance and Turnover.*

The turnover logistic regression results for the supervisor referent group are summarized in Table 8. There was little support for this hypothesis. Only one characteristic, distance from one's supervisor on FT/PT status, related to turnover ( $\beta = .55, p < .01$ ). Employees

with supervisors who differed on FT/PT status were more likely to turnover. Though, since supervisor FT/PT status distance was significantly correlated with employee FT/PT status, this relationship may simply signify that part-time employees are more likely to turnover ( $r = -.06, p < .01$ ).

*Hypothesis 1c: Linear Relationship between Customer Distance and Turnover.*

The turnover logistic regression results for the customer referent group are summarized in Table 9. The fit statistics for this model, in comparison to the base model, remained essentially the same ( $\Delta R^2 = .001$ ). Of the two relevant relational demography characteristics, age and race distance, only race distance from one's customers significantly related to turnover ( $\beta = .38, p < .01$ ). The more racially distance the employee was from the customer; the more likely she or he was to turnover.

*Hypothesis 2a: Linear Relationship between Coworker Distance and Transfer.*

The transfer logistic regression results for the coworker referent group are summarized in Table 10. The  $R^2$  for this model increased over the base model ( $\Delta R^2 = .021$ ). All relational demography characteristics were significantly and positively related to employee transfer ( $p < .01$ ), supporting this hypothesis. More specifically, the more distance the employee was from his/her coworkers on age, race, gender, FT/PT status, or branch tenure, the more likely she or he was to transfer to another branch location.

*Hypothesis 2b: Linear Relationship between Supervisor Distance and Transfer.*

The transfer logistic regression results for the supervisor referent group are summarized in Table 11. Similar to the turnover relationship for this group, there was little support for this hypothesis. Of the five distance variables, only distance to one's supervisor on branch tenure was significantly related to transfer ( $\beta = -.009, p < .01$ ), yet

in the opposite direction. Contradicting the linear hypothesis, distance from one's supervisor in regards to branch tenure related to a lower likelihood of transferring.

*Hypothesis 2c: Linear Relationship between Customer Distance and Transfer.*

The transfer logistic regression results for the customer referent group are summarized in Table 12. While the model fit did not change substantially from the base model ( $\Delta R^2 = .002$ ), both relational demography coefficients were significant, providing some support for this hypothesis. That is, the more different the employee was in regards to race and age from his/her customers, the more likely she or he was to transfer from the branch location ( $p < .01$ ).

*Hypothesis 3 & 4 – Moderated Relationships*

The moderated hypotheses predict that the relationship between relational demography and employee turnover (H3a-b) or transfer (H4a-b) is moderated by employee branch tenure. To test the moderated hypotheses, I first computed interaction terms by multiplying the employee's branch tenure (or tenure with the supervisor for the supervisor referent group) with the relational demography variables. I then performed logistic regressions for each referent group adding the interaction terms to the linear logistic regression equations to test whether the length of time with the referent group moderated the relationship between relational demography and turnover or transfer.

*Hypothesis 3a: Moderated Relationship between Coworker Distance and Turnover.* The max-rescaled  $R^2$  for this model did not increase substantially over the base model or linear model ( $\Delta R^2 = .006, .003$  respectively). As predicted, however, the relationships between turnover and age, gender, and branch tenure distance were moderated by employee's tenure with the group (see Table 7). Early in an employee's

tenure with the branch, distance from coworkers on age or gender led to a higher probability of turnover (see Figure 4 and 5 respectively)<sup>6</sup>. However, no significant relationship between turnover and age or gender distance from coworkers emerged when employees had high branch tenure.

Branch tenure distance from coworkers had the opposite relationship. That is, early in the employee's branch tenure, branch tenure distance had no significant relationship with turnover. However, as employee branch tenure increased, and ostensibly branch tenure differences were made more prevalent, higher branch tenure distance related to increased turnover (see Figure 6).

Overall these three results lend support to the overriding hypothesis that the more visible characteristics (age, gender) related to turnover early in an employee's tenure with the branch, while those less visible characteristics had a stronger effect later in an employee's branch tenure.

*Hypothesis 3b: Moderated Relationship between Supervisor Distance and Turnover.* This model seemed to fit the data slightly better than the base model ( $\Delta R^2 = .01$ ), yet there was only one significant moderated relationship for this referent group, lending little support for this hypothesis (see Table 8). That is, tenure with one's supervisor moderated the relationship between gender distance from the supervisor and turnover. Contrary to predicted, early in the employee's tenure, employees with a supervisor of the opposite sex were slightly less likely to turnover (see Figure 7). However, as the employee's tenure with the supervisor increased, this relationship is in

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<sup>6</sup> I plotted the interactions involving the continuous variables by depicting the regression lines of the relationship between the two variables (e.g., branch tenure and age distance) with transfer or turnover at one standard deviation above and one standard deviation below the mean.



the opposite direction; employees with a supervisor of the opposite sex were more likely to turnover.

*Hypothesis 4a: Moderated Relationship between Coworker Distance and Transfer.* This hypothesis was partially supported, with the model having better fit than the base model ( $\Delta R^2 = .021$ ), though not much better than the linear model ( $\Delta R^2 = .001$ ). Employee's branch tenure moderated both the relationship between transfer and coworker race distance as well as transfer and coworker branch tenure distance (see Table 10). Partially supporting the hypothesis, employees with low branch tenure tended to transfer to another branch when they were racially different from their coworkers. While a similar relationship existed for those with higher branch tenure, the probability of transferring was consistently lower if the employee had been with the group longer (see Figure 8).

For branch tenure distance, a slightly different relationship existed. Namely, early in an employee's branch tenure, no apparent relationship existed between branch tenure distance and transfer (see Figure 9). However, as the employee spent more time with the group, branch tenure distance related to transferring to another branch. Again, these three results lend support to the overriding hypothesis that race, a more visible characteristic, related to transfer early in an employee's tenure with the group, while branch tenure, a less visible characteristic, had a stronger relationship later in an employee's tenure.

*Hypothesis 4b: Moderated Relationship between Supervisor Distance and Transfer.* Unlike with the moderated relationship between supervisor distance and turnover, I found some support for a moderated relationship between transfer and

distance from one's supervisor on age, race, and gender (see Table 11), though the fit did not improve substantially from the base model ( $\Delta R^2 = .006$ ).

Age and gender distance both had similar relationships with transfer, which were opposite than predicted (see Figure 10 and 11). More specifically, early in employee tenure with the supervisor, there is no significant relationship between transfer and age or gender distance to one's supervisor. However, as the employee spent more time with the supervisor, being different from the supervisor both in respect to age and gender led to less transfers.

Similar to the relationship with age and gender, early in an employee's tenure with the supervisor, there was no significant relationship between transfer and having a supervisor of a different race. However, for employees who had higher tenure with their supervisor, being of a different race related to increased likelihood of employee transfer (see Figure 12). In sum, it appears that, over time, being different from one's supervisor on age or gender was beneficial, yet being different racially related to employee transfer.

#### *Hypothesis 5 & 6 – Asymmetric Relationships*

To test the asymmetric hypotheses, that being distant from the work community leads to turnover (H5a-c) or transfer (H6a-c) for employees with certain demographic characteristics (e.g., White, older), I again computed a series of interaction terms for each of the referent groups. For co-workers, I computed two interaction terms – for race and gender – by multiplying the employee's race or gender characteristic by his or her distance from coworkers on that characteristic (e.g., employee's race x race distance to coworkers). Similarly, for the customer referent group, I computed the employee's race by race distance to customers' interaction. For the supervisor referent group, I computed

similar interaction terms for the characteristics of gender and race. In addition, I was interested in several other variables for this referent group. Namely, I wished to test if being older or more tenured than one's supervisor related to turnover and transfer. To test this relationship I included a directional relational demography score for age and tenure, in addition to the absolute value difference score used in the aforementioned analyses. That is, the directional age difference between the supervisor and the employee was the employee's age minus the supervisor's age. Therefore, if the value was positive, the employee was older than the supervisor. A positive relationship would denote that employees who are older than their supervisor were more likely to turnover or transfer. A similar score was created for branch tenure distance.

*Hypothesis 5a: Asymmetric Relationship between Coworker Distance and Turnover.* The hypothesis that the employee is more likely to turnover when she or he is different from coworkers and male or different and White, was not supported (see Table 7). The max rescaled-  $R^2$  did not improve much from the base model or the linear model ( $\Delta R^2 = .003, .000$  respectively). The asymmetric gender interaction approached significance ( $p < .10$ ), however, this relationship was opposite to predicted. Namely, for males, the relationship between gender distance and turnover was not significant. Females, on the other hand, were more likely to leave when different from the group. Again, however, this relationship did not reach significance.

*Hypothesis 5b: Asymmetric Relationship between Supervisor Distance and Turnover.* The hypothesis that employees are more likely to turnover when they are different from their supervisor and White, male, more tenure, or older, was partially supported (see Table 8,  $\Delta R^2 = .01$ ).

I found support for an asymmetric relationship for both gender and branch tenure distances. First, employees who were more tenured than their supervisor were more likely to leave than those less tenured than their supervisor ( $\beta = .02, p < .05$ ). Second, the relationship between gender distance and turnover was opposite than predicted. That is, females, not males, were more likely to leave the organization when their supervisor was of the opposite gender (see Figure 13). The race distance asymmetric relationship also approached significance; however, upon graphing the interaction, no discernable relationship emerged.

*Hypothesis 5c: Asymmetric Relationship between Customer Distance and Turnover.* I found no support for an asymmetric relationship between race distance and turnover for the customer referent group (see Table 8,  $\Delta R^2 = .001$ ).

*Hypothesis 6a: Asymmetric Relationship between Coworker Distance and Transfer.* The asymmetric model predicting transfer had an improved max-rescaled  $R^2$  ( $\Delta R^2 = .022$ ) from the base model. I found that males, not females, in a group primarily of the opposite gender, were more likely to transfer (see Table 10). Females did not transfer any more or less based on distance to the group on gender ( $\beta = -1.14, p < .01$ ) (see Figure 14).

*Hypothesis 6b: Asymmetric Relationship between Supervisor Distance and Transfer.* The hypothesis that employees different from the supervisor and older, White, male, or more tenured were more likely to transfer was only partially supported (see Table 11,  $\Delta R^2 = .004$ ). That is, when the employee was different and more tenured than the supervisor, the employee was more likely to transfer ( $\beta = .02, p < .01$ ). No other asymmetric relationship was supported for this referent group.

*Hypothesis 6c: Asymmetric Relationship between Customer Distance and Transfer.* Similar to the relationship with turnover, I also found no support for an asymmetric relationship between race distance and transfer for the customer referent group (see Table 12).

A summary table of all findings from the hypothesized relationships can be found in Table 13. Further, Table 14 and 15 provides a review of relationships that were found for each relational demography characteristic.

*Hypothesis 7: Exploratory Transfer Hypothesis*

I also wished to explore employee transfer behavior further. This is, when an employee transfers, does she or he transfer to a branch that is more similar to him or her on the relational demography variables? To test this exploratory transfer hypothesis (H7) I performed paired sample t-tests on the relational demography variables between the transferred employee's two branches. I found that employees did transfer to branches where they were less distant from their coworkers in respect to age, race, organizational, and branch tenure ( $p < .05$ ) but not gender (see Table 16 for summary of results).

I also investigated to see if the same relationship holds for distance from one's supervisor or customers. Namely, I performed t-tests for these referent groups on distance from one's supervisor on age, organizational tenure, and branch tenure. I did not examine the dichotomously coded variables, race, gender, and FT/PT status, as no t-value results would be obtained. None of the supervisor referent group variables were significant. That is, employees did not transfer to branches where the supervisor was any more or less similar to them.

Finally, employees also did not transfer to branches that had more similar customers.

*Additional Transfer Analyses.* I wished to delve into the aforementioned transfer finding, that employees transferred to branches with more similar coworker referent groups. That is, I wanted to compare the relational demography characteristics for those employees who transferred to another branch and then left the organization. Did employees who transferred and remain with the organization, transfer to a more similar branch? Did those who transferred and then left the organization, transfer to a less similar branch?

I again ran two sets of paired t-tests, one for those employees for had transferred and then left the organization and one for those who transferred and did not turnover. I found no significant difference on the coworker distance variables for the employees who transferred and then left the organization. That is, those who had transferred and then left the organization had transferred to a branch with a coworker referent group with approximately the same relational demography characteristics as their previous branch. However, employees who transferred and did not leave the organization had transferred to a more similar branch on coworker age, race, group, and organizational tenure.

### Discussion

In this dissertation, I sought to add to the relational demography literature by; a) testing three theoretically-based relationship models linking relational demography and employee withdrawal; b) examining the time interval in which relational demography may have the most influence on employee withdrawal behaviors using a longitudinal analysis; and c) examining the relationship between relational demography and a rarely if

ever studied employee behavior, transfer, in addition to employee turnover. I summarize and discuss the implications of my findings regarding each of these topics below, and follow with a discussion of the strengths and limitations of this research. I conclude with a discussion of promising directions for future research.

### *Three Competing Models*

First, I wished to investigate three potentially competing theoretical relationship models between relational demography and employee withdrawal. More specifically, based on similarity-attraction theory, self-categorization theory, and social identity theory, I predicted that the relationship between relational demography and employee withdrawal might be linear, moderated by tenure, and/or asymmetric relationship. Rather than finding one overarching relationship between relational demography and employee withdrawal behavior, as I had hoped, I found this relationship to be much more complex. Namely, there was limited support for each theoretically-based relationship model, depending on the relational demography characteristic, the referent group, and the employee behavior.

While I did find evidence for each type of relationship, the significance of these findings may be questioned. That is, my max-rescaled  $R^2$ 's were fairly low (.06-.14) and improved only slightly or not at all over the comparison base models. This lack of improvement implies that the base model (i.e., the simple demographic characteristics and other control predictors) captured most of the explanatory variance in both employee transfer and turnover. This finding is, perhaps, not surprising given that all control variables were included based on their established relationship with employee behavior. For instance, past research has consistently shown that older and more tenured employees

are less likely to turnover, as was found in this dissertation. Further, I found that, as expected, employees who lived far from their job or lived in an area with a low unemployment rate were more likely to turnover or transfer. I also found that full-time employees were less likely to turnover than part-time employees, which was also expected as part-time employees might leave to find full-time work or due to scheduling. Additionally, as expected, females were more likely than males to transfer or turnover. Finally, only employee race was not related to transfer or turnover. So while the control variables accounted for much of the predictive power, several relational demography relationships emerged that may be of interest to both students of relational demography and to practitioners. I now review these different relationships, bearing in mind that they tend not to explain much beyond the control variables.

*Linear Model.* Based on similarity-attraction theory, self-categorization, and social identity theories, I predicted that employees who were more dissimilar to the work community were more likely to turnover or transfer than those who were similar to the work community. Consistent with these theories, employees who differed from their *coworkers* in age, race, gender, branch tenure, or full-time/ part- time status were significantly more likely to *transfer* out of the branch than were employees who were similar to their coworkers on these characteristics. Similarly, employees who differed from their *customers* on age or race were significantly more likely to *transfer* than were employees who were similar to their customers on age or race. In final support, employees were more likely to *turnover* when they were different from their *coworkers* or *customers* on race or different from their *coworkers* on gender.



Counter to these theories, employees who differed from their coworkers or supervisor on branch tenure were less likely to turnover or transfer (respectively). However, both of these relationships may be better explained with the other theoretically-based relationship models. For instance, the linear relationship between turnover and distance from coworkers on branch tenure may be an artifact due to its actual moderated by tenure relationship with turnover. Upon plotting the moderated by tenure relationship, a linear relationship does emerge, however only for employees with high branch tenure. That is, employees with high branch tenure and who were different from coworkers on branch tenure were significantly more likely to turnover than those who had high branch tenure and were similar to their coworkers on branch tenure. Without taking into account the other relationship models one may have interpreted these relationships incorrectly, assuming that dissimilarity on branch tenure resulted in a lower likelihood of turnover across tenure groups.

In sum, this dissertation lends support to the hypothesized linear relationship for the relationship between *transfer* and *customer* relational demography (i.e., age and race distance) and *coworker* relational demography (i.e., age race, gender, branch tenure, and FT/PT status). I found no consistent support for a linear relationship model for the supervisor referent group or the remaining coworker relational demography variables and transfer or turnover. Rather, the other two hypothesized relationship models better represented the relationship between these remaining relational demography and employee withdrawal.

*Moderated by Tenure Model.* Self-categorization and social identity theories posit that initially, individuals utilize more salient demographic characteristics to

categorize the self, while over time, less salient characteristics may be revealed and hence used. I found preliminary support for a moderated by tenure model for the coworker referent group. That is, I found evidence that initially, employees who were dissimilar from their coworkers on more salient or visible characteristics (age and gender) were more likely to *turnover*, while over time, employees who were dissimilar on the less visible characteristics (branch tenure) were more likely to turnover. Further, initially, employees who were dissimilar on race (a visible characteristic) were more likely to *transfer*, while over time, employees who were dissimilar on branch tenure (a less visible characteristic) were more likely to transfer.

I also found a form of moderated by tenure relationship for the supervisor referent group. Initially, employees in mixed race supervisor-employee dyads were not any more likely to *transfer*, however as the employee spent more time with his or her supervisor, employees who had a supervisor of another race were more likely to transfer than were employees whose supervisor was of the same race. Similar moderated relationships existed between transfer and both differences from one's supervisor on gender or age, yet in an opposite direction. Namely, employees with dissimilar supervisors on age and gender were less, not more likely to transfer as they spent more time with the supervisor.

Conversely, employees who had supervisors of the opposite sex were more likely to *turnover* when they had spent more time with their supervisors. That is, over time, having an opposite gendered supervisor was both positive (decreased transfers) and negative (increased turnover).

In sum, I found some support that the salience of relational demography characteristics influences when and how relational demography may relate to transfer

and/or turnover. That is, differences from coworkers on visible characteristics may be more influential early in the employee's tenure than are the less visible characteristics. These moderated by tenure relationships took on different forms for the coworker and supervisor referent groups. More specifically, for coworkers the salient characteristics influenced employee behavior early in an employee's tenure. However for supervisors, the effect of the salient characteristic did not emerge until later in an employee's tenure and were of a different direction.

*Asymmetric Relationship Model.* Self-categorization and social identity theories also posit that individuals need to view their self-categorization positively. Hence, past research has shown that certain minority group members may attempt to self-categorize with the majority when in a majority context (i.e., "Being one of the guys", "Acting White"). Based on this aspect of the theories, I predicted an asymmetric relationship between coworker and customer differences on gender and race and transfer or turnover. I found little support for an asymmetric relationship for these referent groups with the exception of *gender* differences. That is, as expected, males were more likely to *transfer* to another branch when working in groups of mostly women. This finding coincides with Tsui et al., (1992) study which also showed that males in mostly female groups had lower intentions to stay.

The normative fit criterion was used to justify predicting an asymmetric relationship for the supervisor referent group. That is, when the supervisor conformed to his or her normative role (i.e., older, more tenured, or White), employees would be less likely to turnover or transfer. On the other hand, when the supervisor was different from

the employee and deviated from these role characteristics (i.e., younger, less tenured, non-White), the employee was predicted to be more likely to transfer or turnover.

Confirming expectations, employees who were more tenured than their supervisors did tend to transfer or turnover. Contrary to expectations, females, not males, were more likely to leave the organization if their supervisor was the opposite gender. This finding may be due to the fact the bank was primarily female, so having a male supervisor may deviate the norm for that organization. In other words, the normative criterion for the organization might be for the supervisor to be more tenured and female. If this were the case, females may be more likely to turnover when the supervisor was male than vice versa. Surprisingly, no asymmetric relationship was found for age distance from the supervisor as has been found in the past (e.g., Tsui, et al., 2002 and Tsui & O'Reilly, 1989 respectively).

In review, I found some support for all three relationship models, depending on the relational demography characteristic, the referent group, and the dependent variable<sup>7</sup>. While I had hoped that one relationship would emerge as most predictive across all of the variables, my results suggest a more complex reality. Overall, however, I found little support that relational demography variables predict transfer or turnover beyond the simple demographic characteristics. Nonetheless, future research may wish to further investigate these varying relationships in an attempt to replicate the findings here. That is, these findings may be due to the limited number of transfer and turnover events, and

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<sup>7</sup> I also ran a series of logistic regressions for each relationship model (i.e., linear, moderated, and asymmetric) that included all the relational demography variables across the referent groups simultaneously. Again, even by incorporating all relational demography characteristics, the max-rescaled  $\Delta R^2$  values did not increase substantially above the base models.

as such may be limited to this data set. Or it may be that relational demography influences attitudinal characteristics more so than employee withdrawal behaviors. More specifically, since relational demography issues pertain to relationships within the work community, their influence may be strongest on employee attitudes such as group commitment or perceived fit. Future research may wish to further decipher the influence, if any, of relational demography on employee withdrawal behaviors.

#### *Practical versus Statistical Importance*

Having reviewed the different statistically significant relationships and discussed the implications, it is important to again note that the relational demography characteristics did not add much predictive power above and beyond the simple demography characteristics and other controls. As such, I investigated the utility to the organization of attending to the influence of relational demography on turnover. I found that by decreasing race distance by one standard deviation (essentially eliminating racial differences), the organization may save approximately \$550, 000 (see Table 17). Further, by decreasing gender distance by one standard deviation, the organization may save approximately \$600,000. While these numbers seem large, these values are approximately one-third of one percent of what the organization spends on base salaries per year. Hence, while these relationships have statistical significance, they do not add much prediction beyond the simple demographic characteristics and they do not have much practical importance.

#### *Time Dimension*

Before performing the logistic analyses in this dissertation, I first examined the time interval in which relational demography had the most influence on employee

withdrawal behaviors. I found that a one-month time lag better predicted both transfer and turnover than two to twelve month time lags. This finding calls into question the results of prior research in this field, which has generally used a three to five year time lag (e.g., O'Reilly et al., 1989).

In order to determine the best time interval to use, one should investigate the frequency with which the work community changes. For instance, if there is little change to the work community (e.g., little turnover, few new hires), then a longer lag may be appropriate. Conversely, in industries that have frequent change, as service industries often do, a shorter time lag may be necessary. More specifically, if I had regressed the relational demography on turnover (or transfer) with a one-year lag, I would have missed the changes to the relational demography scores that accompany the hiring and turnover of the employees during that year. Although my voluntary turnover and transfer rates were relatively low (about 1.5% monthly), the organization also had approximately 2% of other types of turnover, as well as hired employees each month. As such, by choosing a longer time interval, the results would have provided a skewed and potentially unrealistic picture of the effects of relational demography on turnover or transfer, as the relational demography scores would have been inaccurate.

Future research should investigate the extent to which relational demography scores may change during the study period and choose the time interval to best capture the influence of relational demography on employee behavior. There may not be one correct time interval to use across datasets. Rather, be it a one-month lag, or a one-year lag, future research should take into account the extent to which relational demography scores change during the study period and base the time interval such that the relational

demography score best represents the employee's actual distance to his or her work community. The ideal time interval would balance the ability to capture changes in relational demography scores while still having enough occurrences of the outcome variable to allow for prediction. That is, there is a trade-off between the time interval selected and the base rate of the dependent variable.

### *Transfer*

I know of no studies that have examined the relationship between relational demography and transfer. Yet, from the perspective of the branch, an employee transferring to another branch is equivalent to the employee turning over from that branch. A new person must be hired or transferred from another location and these changes may change the relational demography of the group. Through this dissertation I hoped to bring to light that employee transfer is a relevant behavior for relational demography. That is, there is preliminary evidence that relational demography does relate to transfer and does so in a manner that differs from its relationship with turnover. For instance, employees different from coworkers on age are more likely to transfer where no such relationship exists for turnover. From the perspective of the employee, transferring to another branch may be a better option for alleviating issues that may arise with demographic differences than leaving the organization altogether. In other words, it makes sense that, though small, relational demography might better predicted transfer than it might turnover. Being different from the work community is a relationship issue with the work community, and transferring to another work community helps to solve that issue. Likewise, leaving an organization is a more drastic way to solve it, and therefore may be a less likely way for the employee to resolve demographic differences.

Finally, this dissertation also provided initial support that employees transfer to branches where they are more similar to their coworkers, and those who did not, tended to turnover from the organization. Hopefully, this dissertation will help employee transfer behavior research burgeon.

### *Strengths and Limitations*

As in much research, this study was not without its limitations. First, and most consequential, the three relationship models did not add much prediction over the simple demographic variables and the controls (e.g., unemployment rate, distance to work). So again, while the aforementioned discussion of the results may help one understand the relationship between employee withdrawal and relational demography, the unique effect on employee transfer and turnover is not significant.

Second, and related, I had approximately 1.5% monthly turnover and transfer rates, which resulted in many more observations than turnover or transfer occurrences. I may have found better prediction had either turnover or transfer occurred more frequently. The rare event nature of both transfer and turnover limited the degree to which I could adequately predict either outcome. That is, having “..low base rate, binary variables impose[s] a severe ceiling on the empirical validities of a model developed to account for variance in infrequent events” (Hulin, 1991, p.464).

Another potential limitation of this research is that while I was able to track employee transfer, I was unsure if this transfer was voluntary or involuntary. I assumed that employees transferred voluntarily, and did so to a more similar work community. What could be equally as likely is that the employee was transferred involuntarily by the bank. It would be interesting to know if management intentionally transferred employees



based on their demographic differences. Or maybe, management transfers good performing employees to more similar work communities, and poor performing employees to equal or less similar work communities in hopes that they might turnover. This area is ripe for research.

Related, I used difference scores to measure the supervisor-subordinate relational demography characteristics. While much past relational demography research has used difference scores (for an exception see Wesolowski & Mossholder, 1997), difference scores have been criticized in the past based on methodological issues such as less reliability and/or ambiguity of the relationships pertaining to the different components that make up the difference score (see Edwards, 2002 for more details). Hence, future research may wish to investigate the use of polynomial regression analyses when examining such dyadic relationships.

Another limitation to this dissertation was that I did not have access to actual customer data. Instead, I obtained population data of the zip code as a proxy of customer characteristics. While this may be a valid substitution, obtaining actual customer information would have been preferable.

With its limitations, this dissertation does make several contributions. First, I was able to investigate the relationship between relational demography and employee withdrawal across a range of demographic characteristics. I found these characteristics to differentially relate to employee withdrawal. Hence, future research should not merely lump all relational demography characteristics together when making predictions. Second, this is the first study, to my knowledge, to examine these relationships with a repeated measures longitudinal design. By having access to data gathered monthly for

seventeen months, I was able to choose the best interval for predicting employee turnover and transfer. Further, I was able to capture the most current and accurate relational demography characteristics for employees.

Finally, in this dissertation, I was able to test and compare the three theoretically-based relationship models: linear, moderated by tenure, and asymmetric. Many prior studies have examined the linear model, uncovering, post hoc, other relationship models. In addition, I was able to test these models on employee turnover and, a relatively unstudied employee behavior, transfer.

#### *Directions for Future Research*

Future research should seriously question whether relational demography meaningfully influences employee withdrawal behavior. In doing so, researchers should continue to flesh out the different types of relationships between relational demography and employee withdrawal behavior. Not only would it be helpful to better understand what relationship models apply to which types of characteristics, but future studies are needed to replicate or rebut the results found here. In addition, future research should continue to consider the referent group of interest: coworkers, supervisors, or customers, when investigating these relationships. Each referent group may differentially influence employee behavior, as was found here. Similarly, researchers may also wish to include a subordinate referent group. In other words, does an employee's difference from his or her subordinates influence his or her withdrawal behaviors? Finally, additional longitudinal research is needed to help better reveal these relationships, and determine if the best time interval of relational demography effects are consistent across settings and samples.

Table 1  
*Review of Relational Demography Studies.*

<b>Study</b>	<b>Relational Demography Characteristic(s)</b>	<b>Outcome Variable(s)</b>	<b>Referent Group(s)</b>	<b>Proposed Relationship<sup>8</sup></b>	<b>Findings<sup>9</sup></b>
Barsade, et al., 2000	Org. tenure, Education	Satisfaction	Co-workers (TMT)	None, control variables	Education (-) Tenure (+)
Jackson, et al., 1991	Age, Org. Tenure, Education level, College Major, Experience outside industry, Military exp.	Turnover	Co-workers (TMT)	Linear	Age (ns), Tenure (ns), Education level (+), College (ns), Curriculum (+), Experience outside industry (+), military experience (ns)
Konrad, et al., 1992	Gender	Satisfaction	Co-workers	Asymmetric (partial)	Both genders were more satisfied in male-dominated groups.
McNeilly & Russ, 2000	Age, Education, Gender	Attachment (commitment)	Supervisor	Linear	Age (ns), Education (ns), Gender (-)
Mueller et al., 1999	Race	Commitment, satisfaction	Co-teachers	Asymmetric	White teachers in Black settings less satisfied/committed than black teachers in white settings.
O'Reilly, et al., 1989	Age, Branch tenure	Turnover, integration	Co-workers	Linear	Turnover: Age (+), Branch tenure (ns). Integration: Age (ns), Branch tenure (ns)

<sup>8</sup> Only the three different relationship models are reviewed in this table: linear, asymmetric, and moderated by tenure. Other relationships (e.g., moderated by status, mediated, u-shaped), included in any of these studies are not discussed.

<sup>9</sup> Positive relationships (+) refer to demography differences significantly relating to higher levels of the outcome variable. Negative relationships (-), therefore, refer to differences on the characteristic significantly relating to lower level of the outcome variable.

<b>Study</b>	<b>Relational Demography Characteristic(s)</b>	<b>Outcome Variable(s)</b>	<b>Referent Group(s)</b>	<b>Proposed Relationship<sup>10</sup></b>	<b>Findings<sup>11</sup></b>
Perry, et al., 1999	Age	Absences	Supervisor	Linear, asymmetric	Age (ns linear). Found if employee is older than supervisor, absent less frequently than if younger than supervisor
Riordan & Shore, 1997	Race, Gender, Org. tenure	Commitment	Co-workers	Linear, asymmetric	Gender (ns), tenure (ns). Race dissimilarity - less commitment – Whites least committed when in minority groups, while nonwhites not as affected.
Shore et al., 2003	Age	Commitment, satisfaction	Supervisor	Linear, Asymmetric	Age (-), no asymmetric results, when similar, more committed/satisfied than when dissimilar.
Tsui, et al., 2002	Race, Gender, Age, Education, Job Tenure, Org. Tenure	Performance rating	Supervisor	Linear, asymmetric	Age & Job tenure differences related (-), Found older, more tenured subordinates were rated the lowest.

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<sup>10</sup> Only the three different relationship models are reviewed in this table: linear, asymmetric, and moderated by tenure. Other relationships (e.g., moderated by status, mediated, u-shaped), included in any of these studies are not discussed.

<sup>11</sup> Positive relationships (+) refer to demography differences significantly relating to higher levels of the outcome variable. Negative relationships (-), therefore, refer to differences on the characteristic significantly relating to lower levels of the outcome variable.

<b>Study</b>	<b>Relational Demography Characteristic(s)</b>	<b>Outcome Variable(s)</b>	<b>Referent Group(s)</b>	<b>Proposed Relationship<sup>12</sup></b>	<b>Findings<sup>13</sup></b>
Tsui, et al., 1992	Age, Org. tenure, Education, Gender, Race	(Attachment) Commitment, intent to stay, absences	Co-workers	Linear, moderated (partial), asymmetric	Commitment: Race (-) only. Intent to stay – Age (-) and race (-). Absences: Race (+) and Org. ten (-), in opposite direction. Also found, Found asymmetric relationship for gender and race.
Vecchio & Bullis, 2000	Race, Gender, Ethnicity	Satisfaction	Supervisor	Asymmetric	Found white subordinates least satisfied when under nonwhite leaders. No other asymmetric relationships.
Wagner, et al., 1984	Age	Turnover	Co-workers (TMT)	Linear	Age (+)
Weslowski & Mossholder, 1997	Race, Gender, Age, Education	Satisfaction	Supervisor	Linear	Race (-), Gender, Age, & Education (ns)
Wiersma & Bird, 1993	Org. tenure, Branch tenure, Age, Prestige of University	Turnover	Co-workers (TMT)	Linear	Prestige of university distance (+).

<sup>12</sup> Only the three different relationship models are reviewed in this table: linear, asymmetric, and moderated by tenure. Other relationships (e.g., moderated by status, mediated, u-shaped), included in any of these studies are not discussed.

<sup>13</sup> Positive relationships (+) refer to demography differences significantly relating to higher levels of the outcome variable. Negative relationships (-), therefore, refer to differences on the characteristic significantly relating to lower levels of the outcome variable.

Table 2

*Sample Data from One Branch Location.*

Employee	PERIOD	1 = Supervisor	1 = Quit	AGE	Age Distance to Coworkers	ETHNIC	Ethnic Distance to Coworkers
1	Jan 2002	.	0	25.0	8.4853	White	0.00000
1	Feb 2002	.	0	25.0	8.9582	White	0.00000
1	Mar 2002	.	0	25.0	11.3578	White	0.20000
1	Apr 2002	.	0	25.0	11.3578	White	0.20000
1	May 2002	.	0	25.0	11.1430	White	0.16667
2	Jan 2002	.	0	29.0	6.3246	White	0.00000
2	Feb 2002	.	0	29.0	6.8007	White	0.00000
2	Mar 2002	.	0	29.0	8.7293	White	0.20000
2	Apr 2002	.	0	29.0	8.7293	White	0.20000
2	May 2002	.	0	29.0	8.3367	White	0.16667
3	Jan 2002	.	0	29.0	6.3246	White	0.00000
3	Feb 2002	.	0	29.0	6.8007	White	0.00000
3	Mar 2002	.	0	29.0	8.7293	White	0.20000
3	Apr 2002	.	0	29.0	8.7293	White	0.20000
3	May 2002	.	0	29.0	8.3367	White	0.16667
4	Jan 2002	1	0	29.0	.	Hispanic	.
4	Feb 2002	1	0	30.0	.	Hispanic	.
4	Mar 2002	1	0	30.0	.	Hispanic	.
4	Apr 2002	1	0	30.0	.	Hispanic	.
4	May 2002	1	0	30.0	.	Hispanic	.
5	Feb 2002	.	0	42.0	12.5200	White	0.00000
5	Mar 2002	.	0	42.0	11.2071	White	0.20000
5	Apr 2002	.	0	42.0	11.2071	White	0.20000
5	May 2002	.	0	42.0	10.6223	White	0.16667
6	Mar 2002	.	0	43.0	11.9750	Black	0.80000
6	Apr 2002	.	0	43.0	11.9750	Black	0.80000
6	May 2002	.	0	43.0	11.4091	Black	0.83333
7	May 2002	.	0	35.0	6.8920	White	0.16667

Table 3

*Means, Standard Deviations, and Correlation Coefficients for Coworker Referent Group Variables\**

	Mean	STD	N	Age	Race	Gender	Org. Tenure	Branch tenure	FT/PT Status	UR
<b>Control Variables</b>										
Age	37.89	12.66	152074	1.000						
Race	0.85	0.35	154385	0.144	1.000					
Gender	0.88	0.33	152074	0.107	-0.013	1.000				
Org. Tenure	9.07	9.62	146641	0.657	0.157	0.084	1.000			
Branch Tenure	7.75	9.39	146946	0.604	0.148	0.081	0.899	1.000		
FT/PT Status	0.80	0.40	154385	0.141	0.020	-0.058	0.207	0.201	1.000	
UR	4.93	1.80	153757	0.101	0.109	0.064	0.108	0.094	0.009	1.000
Distance to work	6.42	8.30	147633	-0.104	0.034	-0.073	-0.084	-0.098	0.044	0.005
Branch size	9.74	4.37	154385	0.054	0.004	-0.027	0.062	0.063	-0.047	-0.026
Time Period	200135	44.26	154385	0.004	-0.003	-0.005	-0.012	-0.052	0.003	0.402
<b>Relational Demography Variables</b>										
Age distance	14.51	5.74	128828	0.193	0.037	0.052	0.091	0.080	-0.083	-0.028
Race Distance	0.16	0.25	128819	-0.144	-0.746	-0.035	-0.148	-0.151	-0.013	-0.099
Gender Distance	0.15	0.23	128828	-0.152	-0.018	-0.854	-0.138	-0.130	0.037	-0.125
Org. Tenure Distance	10.14	5.36	129743	0.373	0.108	0.102	0.561	0.508	0.024	0.129
Branch Tenure Distance	9.62	5.56	130062	0.390	0.121	0.103	0.569	0.602	0.040	0.124
FT/PT Status Distance	0.29	0.25	131096	-0.077	0.014	0.051	-0.129	-0.134	-0.801	0.010
<b>Dependent Variables</b>										
Transfer	0.02	0.13	140788	-0.055	-0.009	-0.031	-0.046	-0.049	0.000	-0.017
Turnover	0.01	0.12	140788	-0.084	-0.013	-0.016	-0.080	-0.073	-0.057	-0.023

\*  $r$  of .005 is significant at  $p < .05$

Table 3 continued

*Means, Standard Deviations, and Correlation Coefficients for Coworker Referent Group Variables\**

	Distance to work	Branch size	Time Period	Age distance	Race Distance	Gender Distance	Org. Tenure Distance	Branch Tenure Distance	FT/PT Status Distance	Transfer	Turnover
<b>Control Variables</b>											
Distance to work	1.000										
Branch size	-0.006	1.000									
Time Period	-0.004	0.004	1.000								
<b>Relational Demography Variables</b>											
Age distance	-0.036	0.192	0.003	1.000							
Race Distance	0.039	0.065	0.001	0.005	1.000						
Gender Distance	0.058	0.118	0.004	-0.037	0.062	1.000					
Org. Tenure Distance	-0.068	0.195	-0.003	0.397	-0.103	-0.130	1.000				
Branch Tenure Distance	-0.078	0.207	-0.038	0.342	-0.128	-0.137	0.893	1.000			
FT/PT Status Distance	-0.063	0.080	0.009	0.119	0.004	-0.054	0.024	0.007	1.000		
<b>Dependent Variables</b>											
Transfer	0.057	0.021	-0.002	0.010	0.027	0.037	-0.019	-0.022	0.006	1.000	
Turnover	0.017	0.008	-0.016	0.001	0.024	0.029	-0.034	-0.038	0.033	-0.008	1.000

\*  $r$  of .005 is significant at  $p < .05$



Table 4  
*Means, Standard Deviations, and Correlation Coefficients for Supervisor Referent Group Variables\**

	Mean	STD	N	Age	Race	Gender	Org. Tenure	Branch Tenure	FT/PT Status	UR
<b>Control Variables</b>										
Age	37.89	12.66	152074	1.000						
Race	0.85	0.35	154385	0.144	1.000					
Gender	0.88	0.33	152074	0.107	-0.013	1.000				
Org. Tenure	9.07	9.62	146641	0.657	0.157	0.084	1.000			
Branch Tenure	7.75	9.39	146946	0.604	0.148	0.081	0.899	1.000		
FT/PT Status	0.80	0.40	154385	0.141	0.020	-0.058	0.207	0.201	1.000	
UR	4.93	1.80	153757	0.101	0.109	0.064	0.108	0.094	0.009	1.000
Distance to work	6.42	8.30	147633	-0.104	0.034	-0.073	-0.084	-0.098	0.044	0.005
Branch size	9.74	4.37	154385	0.054	0.004	-0.027	0.062	0.063	-0.047	-0.026
Time Period	200135	44.26	154385	0.004	-0.003	-0.005	-0.012	-0.052	0.003	0.402
<b>Relational Demography Variables</b>										
Age distance	12.49	9.35	119788	-0.113	-0.017	-0.003	-0.099	-0.089	-0.111	-0.027
Race Distance	0.16	0.37	119788	-0.118	-0.718	-0.014	-0.118	-0.110	-0.002	-0.060
Gender Distance	0.31	0.46	119788	-0.026	-0.012	-0.278	0.003	0.013	0.017	-0.009
Org. Tenure Distance	11.08	8.97	118950	0.024	0.019	0.041	0.013	0.017	-0.056	0.078
Branch Tenure Distance	10.43	9.41	118950	0.127	0.035	0.062	0.166	0.166	-0.013	0.071
FT/PT Status Distance	0.21	0.41	120194	-0.125	-0.004	0.029	-0.201	-0.198	-0.992	-0.006
<b>Dependent Variables</b>										
Transfer	0.02	0.13	140788	-0.055	-0.009	-0.031	-0.046	-0.049	0.000	-0.017
Turnover	0.01	0.12	140788	-0.084	-0.013	-0.016	-0.080	-0.073	-0.057	-0.023

\*  $r$  of .005 is significant at  $p < .05$

Table 4 continued  
*Means, Standard Deviations, and Correlation Coefficients for Supervisor Referent Group Variables\**

	Distance to work	Branch size	Time Period	Age distance	Race Distance	Gender Distance	Org. Tenure Distance	Branch Tenure Distance	FT/PT Status Distance	Transfer	Turnover
<b>Control Variables</b>											
Distance to work	1.000										
Branch size	-0.006	1.000									
Time Period	-0.004	0.004	1.000								
<b>Relational Demography Variables</b>											
Age distance	-0.010	0.068	0.006	1.000							
Race Distance	-0.005	0.013	-0.002	0.005	1.000						
Gender Distance	0.001	0.014	0.008	-0.015	0.015	1.000					
Org. Tenure Distance	-0.043	0.046	0.007	0.408	-0.032	-0.019	1.000				
Branch Tenure Distance	-0.068	0.068	-0.023	0.301	-0.043	-0.025	0.777	1.000			
FT/PT Status Distance	-0.033	0.063	-0.001	0.111	0.001	-0.018	0.055	0.012	1.000		
<b>Dependent Variables</b>											
Transfer	0.057	0.021	-0.002	0.002	0.008	0.005	-0.012	-0.023	0.003	1.000	
Turnover	0.017	0.008	-0.016	0.015	0.013	0.002	0.001	-0.014	0.049	-0.008	1.000

\*  $r$  of .005 is significant at  $p < .05$

Table 5  
*Means, Standard Deviations, and Correlation Coefficients for Customer Referent Group Variables\**

	Mean	STD	N	Age	Race	Gender	Org. Tenure	Branch Tenure	FT/PT Status	UR
<b>Control Variables</b>										
Age	37.89	12.66	152074	1.000						
Race	0.85	0.35	154385	0.144	1.000					
Gender	0.88	0.33	152074	0.107	-0.013	1.000				
Org. Tenure	9.07	9.62	146641	0.657	0.157	0.084	1.000			
Branch Tenure	7.75	9.39	146946	0.604	0.148	0.081	0.899	1.000		
FT/PT Status	0.80	0.40	154385	0.141	0.020	-0.058	0.207	0.201	1.000	
UR	4.93	1.80	153757	0.101	0.109	0.064	0.108	0.094	0.009	1.000
Distance to work	6.42	8.30	147633	-0.104	0.034	-0.073	-0.084	-0.098	0.044	0.005
Branch size	9.74	4.37	154385	0.054	0.004	-0.027	0.062	0.063	-0.047	-0.026
Time Period	200135	44.26	154385	0.004	-0.003	-0.005	-0.012	-0.052	0.003	0.402
<b>Relational Demography Variables</b>										
Age distance	0.83	0.05	143208	-0.121	0.027	0.006	-0.077	-0.061	-0.082	0.029
Race Distance	0.21	0.27	143199	-0.137	-0.786	-0.033	-0.146	-0.143	0.003	-0.099
<b>Dependent Variables</b>										
Transfer	0.02	0.13	140788	-0.055	-0.009	-0.031	-0.046	-0.049	0.000	-0.017
Turnover	0.01	0.12	140788	-0.084	-0.013	-0.016	-0.080	-0.073	-0.057	-0.023

\*  $r$  of .005 is significant at  $p < .05$

Table 5 continued

*Means, Standard Deviations, and Correlation Coefficients for Customer Referent Group Variables\**

	Distance to work	Branch size	Time Period	Age distance	Race Distance	Transfer	Turnover
<b>Control Variables</b>							
Age							
Race							
Gender							
Org. Tenure							
Branch Tenure							
FT/PT Status							
UR							
Distance to work	1.000						
Branch size	-0.006	1.000					
Time Period	-0.004	0.004	1.000				
<b>Relational Demography Variables</b>							
Age distance	0.021	0.019	-0.005	1.000			
Race Distance	0.028	0.059	-0.003	-0.042	1.000		
<b>Dependent Variables</b>							
Transfer	0.057	0.021	-0.002	0.015	0.020	1.000	
Turnover	0.017	0.008	-0.016	0.022	0.023	-0.008	1.000

\*  $r$  of .005 is significant at  $p < .05$

Table 6

*Hypothesized Relationships Summary.*

Referent Group	Characteristic	Type of Predicted Relationship		
		Linear	Moderated	Asymmetric
Co-Worker	Age	✓	✓	
	Race	✓	✓	✓
	Gender	✓	✓	✓
	Tenure- Group	✓	✓	
	Tenure- Organizational	✓	✓	
	PT/FT status	✓	✓	
Supervisor(s)	Age	✓	✓	✓
	Race	✓	✓	✓
	Gender	✓	✓	✓
	Tenure- Group	✓	✓	✓
	Tenure- Organizational	✓	✓	✓
	PT/FT status	✓	✓	
Customers	Age	✓		
	Race	✓		✓
	Gender		N/A	
	Tenure (Org & Group)		N/A	
	PT/FT status		N/A	

Table 7

*Unstandardized Logistic Regression Coefficients for Coworker Referent Group:  
Turnover*

	Base Model	Linear Model	Moderated by Tenure Model	Asymmetric Model
<i>Control Variables</i>				
Intercept	500.2**	454.6**	486.9**	444.9**
Age	-.032**	-.030**	-.027**	-.030**
Race	-.096	.131	.132	.135
Gender	-.140*	.074	.057	.530†
Branch Tenure	-.090**	-.087**	-.090**	-.089**
Pt/Ft Status	-.694**	-.747**	-.738**	-.758**
UR	-.074**	-.077**	-.075**	-.080**
Miles	.007**	.009**	.009**	.009**
Branch size	-.033**	-.045**	-.044**	-.045**
Time Period	-.003**	-.002**	-.002**	-.002**
<i>Relational Demography Variables</i>				
Age Distance		.007	.018**	.005
Race Distance		.400**	.423**	.405†
Gender Distance		.520**	.387*	.334
Branch Tenure Distance		-.016**	.003	-.014*
PT/FT Status Distance		-.366*	-.399*	-.382*
<i>Moderator Variables</i>				
Age Distance x Branch Tenure			-.006**	
Race Distance x Branch Tenure			-.020	
Gender Distance x Branch Tenure			.053**	
Branch Tenure Distance x Branch Tenure			-.005**	
PT/FT Status Distance x Branch Tenure			.019	
<i>Asymmetric Variables</i>				
Gender x Gender Distance				.785†
Race x Race Distance				-.009
<i>Model Fit</i>				
R <sup>2</sup>	.097	.099	.102	.099
Max Rescaled R <sup>2</sup>	.126	.129	.132	.129
Likelihood Ratio $\chi^2$ (d.f.)	1440.91** (9)	1476.27** (14)	1522.66** (19)	1479.39** (16)

\*\*  $p < .01$ , \*  $p < .05$ , †  $p < .10$

Table 8

*Unstandardized Logistic Regression Coefficients for Supervisor Referent Group:  
Turnover*

	Base Model	Linear Model	Moderated by Tenure Model	Asymmetric Model
<i>Control Variables</i>				
Intercept	568.5**	302.8*	323.0*	329.1*
Age	-.036**	-.030**	-.029**	-.033**
Race	-.089	-.063	-.062	-.239†
Gender	-.084	-.176*	-.184*	.098
Branch Tenure	-.099**	-.095**	-.080**	-.112**
UR	-.064**	-.096**	-.093**	-.090**
Miles	.006*	.007**	.007**	.007**
Branch size	-.025**	-.049**	-.049**	-.048**
Time Period	-.003**	-.002*	-.002*	-.002*
<i>Relational Demography Variables</i>				
Age Distance		.001	.003	.004
Race Distance		-.006	.038	-.221
Gender Distance		-.054	-.106	-.121†
Branch Tenure Distance		-.0004	.002	.020**
PT/FT Status Distance		.554**	.552**	.544**
<i>Moderator Variables</i>				
Age Distance x Branch Tenure			-.002	
Race Distance x Branch Tenure			-.042	
Gender Distance x Branch Tenure			.035*	
Branch Tenure Distance x Branch Tenure			-.003†	
PT/FT Status Distance x Branch Tenure			-.005	
<i>Asymmetric Variables</i>				
Gender x Gender Distance				.405*
Race x Race Distance				.335†
Directional Age Distance				.005
Directional Branch Tenure Distance				.018*
<i>Model Fit</i>				
R <sup>2</sup>	.078	.084	.085	.085
Max Rescaled R <sup>2</sup>	.111	.120	.121	.121
Likelihood Ratio $\chi^2$ (d.f.)	1125.20* (8)	1224.82* (13)	1241.29** (18)	1244.46** (17)

\*\*  $p < .01$ , \*  $p < .05$ , †  $p < .10$

Table 9

*Unstandardized Logistic Regression Coefficients for Customer Referent Group:  
Turnover*

	Base Model	Linear Model	Asymmetric Model
<i>Control Variables</i>			
Intercept	500.2**	513.6**	514.4**
Age	-.032**	-.031**	-.031**
Race	-.096	.143	.277
Gender	-.140*	-.137*	-.138*
Branch Tenure	-.090**	-.090**	-.090**
Pt/Ft Status	-.694**	-.701**	-.698**
UR	-.074**	-.072**	-.072**
Miles	.007**	.007**	.007**
Branch size	-.033**	-.033**	-.033**
Time Period	-.003**	-.003**	-.003**
<i>Relational Demography Variables</i>			
Age Distance		.158	.110
Race Distance		.380**	.532*
<i>Asymmetric Variables</i>			
Race x Race			-.252
<i>Model Fit</i>			
R <sup>2</sup>	.107	.108	.108
Max Rescaled R <sup>2</sup>	.138	.139	.139
Likelihood Ratio $\chi^2$ (d.f.)	1608.67** (9)	1616.74** (11)	1617.57** (12)

\*\*  $p < .01$ , \*  $p < .05$ , †  $p < .10$



Table 10

*Unstandardized Logistic Regression Coefficients for Coworker Referent Group:  
Transfer*

	Base Model	Linear Model	Moderated by Tenure Model	Asymmetric Model
<i>Control Variables</i>				
Intercept	-317.6**	-260.6**	-233.5**	-245.2**
Age	-.023**	-.022**	-.020**	-.022**
Race	-.021	.407**	.383**	.214
Gender	-.392**	-.046	.057	-.615*
Branch Tenure	-.036**	-.043**	-.051**	-.043**
Pt/Ft Status	.578**	1.283**	1.293**	1.294**
UR	-.041**	-.026	-.024	-.021
Miles	.019**	.019**	.019**	.019**
Branch size	-.013*	-.043*	-.041**	-.042**
Time Period	.002**	.001*	.001†	.001†
<i>Relational Demography Variables</i>				
Age Distance		.022**	.027**	.024**
Race Distance		.937**	.774**	.674**
Gender Distance		.815**	.889**	1.105**
Branch Tenure Distance		.019**	.011†	.022**
PT/FT Status Distance		1.62**	1.659**	1.637**
<i>Moderator Variables</i>				
Age Distance x Branch Tenure			-.001†	
Race Distance x Branch Tenure			.040**	
Gender Distance x Branch Tenure			-.029†	
Branch Tenure Distance x Branch Tenure			.002**	
PT/FT Status Distance x Branch Tenure			-.014	
<i>Asymmetric Variables</i>				
Gender x Gender Distance				-1.144**
Race x Race Distance				.373
<i>Model Fit</i>				
R <sup>2</sup>	.046	.061	.063	.062
Max Rescaled R <sup>2</sup>	.062	.083	.084	.084
Likelihood Ratio $\chi^2$ (d.f.)	642.10** (9)	875.05** (14)	893.22** (19)	883.11** (16)

\*\*  $p < .01$ , \*  $p < .05$ , †  $p < .10$

Table 11  
*Unstandardized Logistic Regression Coefficients for Supervisor Referent Group:  
 Transfer*

	Base Model	Linear Model	Moderated by Tenure Model	Asymmetric Model
<i>Control Variables</i>				
Intercept	-344.0**	-229.5†	-173.9	-184.5
Age	-.022**	-.020**	-.020**	-.024**
Race	-.025	.097	.084	.251
Gender	-.431**	-.459**	-.441**	-.454**
Branch Tenure	-.032**	-.038**	-.020**	-.054**
UR	-.044**	-.042*	-.037*	-.035*
Miles	.019**	.019**	.019**	.019**
Branch size	-.016**	-.011†	-.011†	-.010
Time Period	.002**		.001	.001
<i>Relational Demography Variables</i>				
Age Distance		-.002	.002	.0001
Race Distance		.088	.013	.257
Gender Distance		-.072	-.012	-.082
Branch Tenure Distance		-.009**	-.008*	-.008†
PT/FT Status Distance		-.096	-.116†	-.103†
<i>Moderator Variables</i>				
Age Distance x Branch Tenure			-.003**	
Race Distance x Branch Tenure			.034*	
Gender Distance x Branch Tenure			-.031*	
Branch Tenure Distance x Branch Tenure			-.002	
PT/FT Status Distance x Branch Tenure			.006	
<i>Asymmetric Variables</i>				
Gender x Gender Distance				-.003
Race x Race Distance				-.266
Directional Age Distance				.005
Directional Branch Tenure Distance				.016**
<i>Model Fit</i>				
R <sup>2</sup>	.041	.042	.044	.043
Max Rescaled R <sup>2</sup>	.056	.058	.062	.060
Likelihood Ratio $\chi^2$ (d.f.)	565.73** (8)	582.47** (13)	622.29** (18)	608.19** (17)

\*\*  $p < .01$ , \*  $p < .05$ , †  $p < .10$

Table 12  
*Unstandardized Logistic Regression Coefficients for Customer Referent Group: Transfer*

	Base Model	Linear Model	Asymmetric Model
<i>Control Variables</i>			
Intercept	-317.6**	-296.9**	-296.7**
Age	-.023**	-.022**	-.022**
Race	-.021	.349**	.438*
Gender	-.392**	-.380**	-.381**
Branch Tenure	-.036**	-.036**	-.036**
Pt/Ft Status	.578**	.575**	.576**
UR	-.041**	-.036*	-.037*
Miles	.019**	.018**	.018**
Branch size	-.013*	-.015*	-.015**
Time Period	.002**	.001**	.001**
<i>Relational Demography Variables</i>			
Age Distance		1.263**	1.238**
Race Distance		.606**	.708**
<i>Asymmetric Variables</i>			
Race x Race			-.148
<i>Model Fit</i>			
R <sup>2</sup>	.053	.055	.055
Max Rescaled R <sup>2</sup>	.067	.069	.069
Likelihood Ratio $\chi^2$ (d.f.)	750.49** (9)	779.81** (11)	780.10** (12)

\*\*  $p < .01$ , \*  $p < .05$ , †  $p < .10$

Table 13

*Summary of Hypothesized Relationships for Turnover.*

Referent Group	Distance Variables	Type of Predicted Relationship					
		Linear		Moderated		Asymmetric	
		Turnover	Transfer	Turnover	Transfer	Turnover	Transfer
Co-Worker	Age Distance	ns	✓ +	✓ -	ns		
	Race Distance	✓ +	✓ +	ns	✓ +	ns	ns
	Gender Distance	✓ +	✓ +	✓ +	ns	ns	✓ -
	Branch Tenure Distance	✓ -	✓ +	✓ -	✓ +		
	FT/PT Status Distance	✓ -	✓ +	ns	ns		
Supervisor(s)	Age Distance	ns	ns	ns	✓ -	ns	ns
	Race Distance	ns	ns	ns	✓ +	ns	ns
	Gender Distance	ns	ns	✓ +	✓ -	✓ +	ns
	Branch Tenure Distance	ns	✓ -	ns	ns	✓ +	✓ +
	FT/PT Status Distance	✓ +	ns	ns	ns		
Customers	Age Distance	ns	✓ +				
	Race Distance	✓ +	✓ +			ns	ns
	Gender Distance						
	Branch Tenure Distance				N/A		
	FT/PT Status Distance						

Table 14

*Relationships found between Relational Demography and Turnover.*

	<i>Coworker</i>	<i>Supervisor</i>	<i>Customer</i>
<b>Age Distance</b>	Moderated	ns	ns
<b>Race Distance</b>	Linear	ns	Linear
<b>Gender Distance</b>	Linear/Moderated	Moderated/Asymmetric	
<b>FT/PT Distance</b>	Linear (-)	-	
<b>Branch Tenure Distance</b>	Moderated	Asymmetric	

Table 15

*Relationships found between Relational Demography and Transfer*

	<i>Coworker</i>	<i>Supervisor</i>	<i>Customer</i>
<i>Age Distance</i>	Linear	Moderated (-)	Linear
<b>Race Distance</b>	Linear/Moderated	Moderated	Linear
<b>Gender Distance</b>	Linear/Asymmetric	Moderated (-)	
<b>FT/PT Distance</b>	Linear	ns	
<b>Branch Tenure Distance</b>	Linear/Moderated	Linear (-), Asymmetric	

Table 16

*Paired T-test Results.*

<i>Relational Demography Variable</i>	<i>t-value</i>	<i>D.F.</i>
<i>Coworker Referent Group</i>		
Age Distance	-4.03**	1743
Race Distance	-2.35*	1743
Gender Distance	-.82	1743
Organizational Tenure Distance	-3.61**	1762
Branch Tenure Distance	-4.65**	1767
<i>Supervisor Referent Group</i>		
Age Distance	-1.13	1687
Organizational Tenure Distance	.87	1662
Branch Tenure Distance	.66	1662
<i>Customer Referent Group</i>		
Age Distance	-.88	2059
Race Distance	-1.20	2059

\*\*  $p < .01$ \*  $p < .05$

Table 17

*Utility Analysis of Relational Demography and Turnover for Coworker Referent Group.*

<i>Relational Demography Characteristic (-1 Std. Dev.)</i>	<i>% Difference in Monthly Turnover</i>	<i>Monthly Average # of Employees</i>	<i>% Difference in Yearly Turnover</i>	<i># of People who would have stayed yearly</i>	<i>Mean Base Pay</i>	<i>Utility (Yearly)*</i>	<i>Base Pay Expenditure Yearly</i>	<i>% of Base Pay Saved Yearly</i>
Race Distance	.06%	8706	.72%	63	\$22,163	\$550,000	\$192,950,000	.30%
Gender Distance	.07%	8706	.84%	73	\$22,163	\$650,000	\$192,950,000	.30%
Race & Gender Distance	.13%	8706	.13%	136	\$22,163	\$1,200,000	\$192,950,000	.60%

\* Equals approximately 40% of base pay times the number of people who would have stayed



Figure 1

$R^2$  over time for Coworkers.

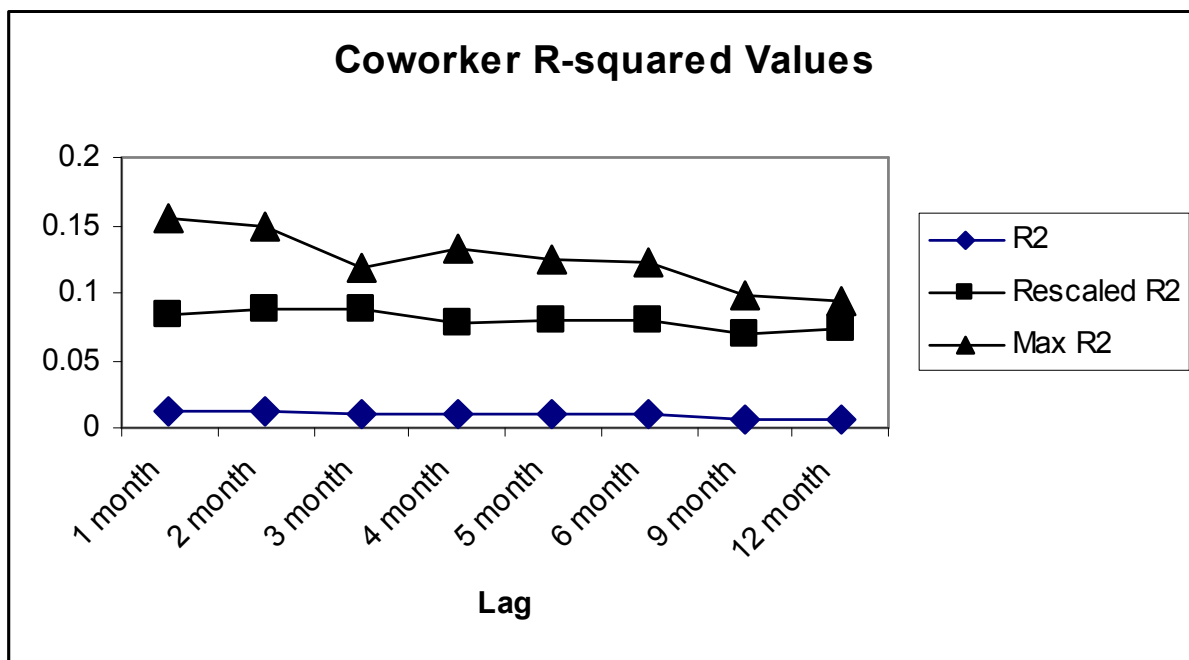


Figure 2

$R^2$  over time for Supervisors.

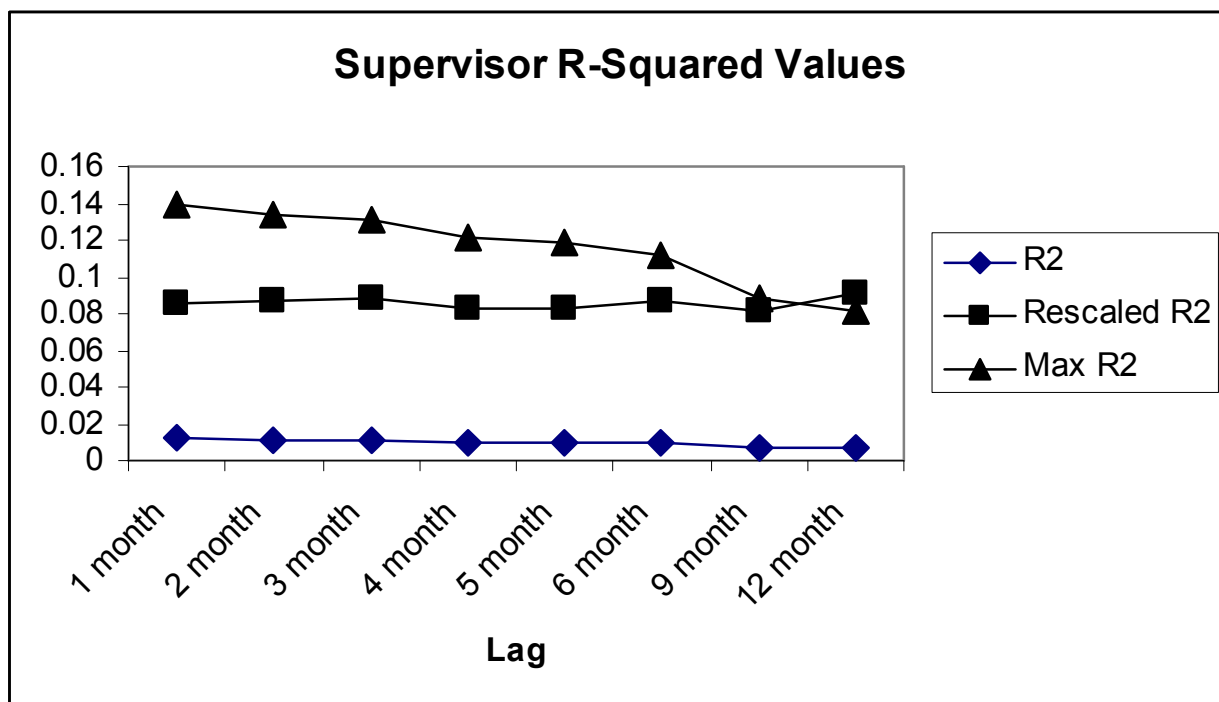


Figure 3

$R^2$  over time for Customers.

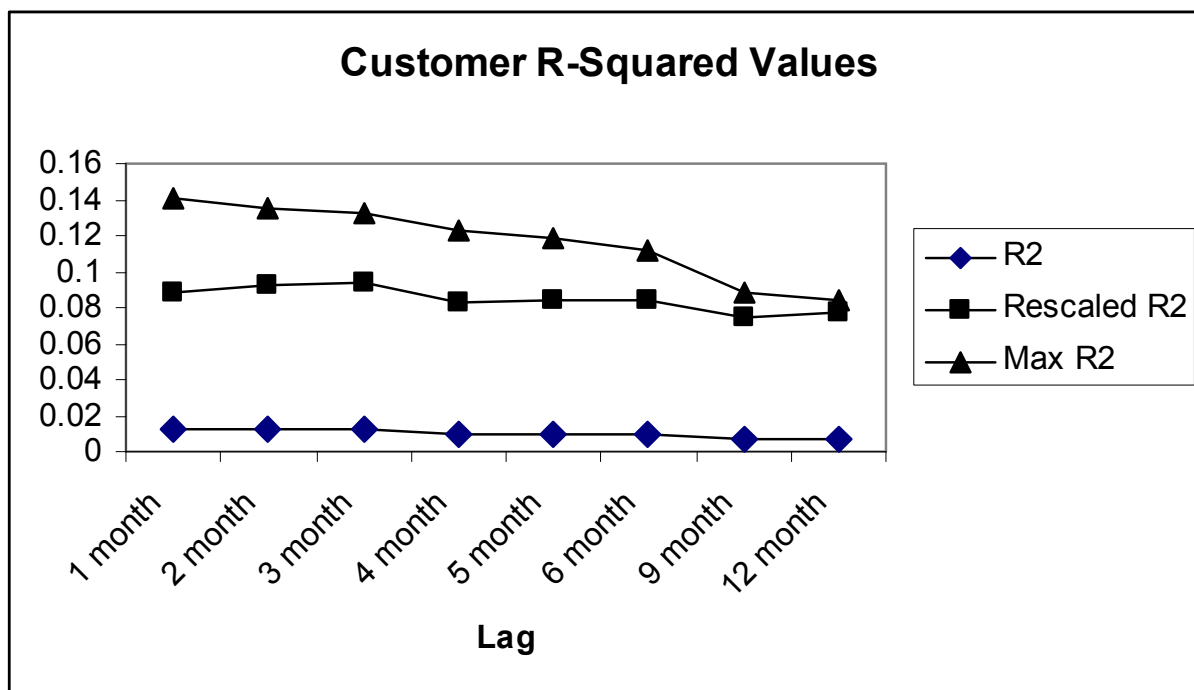


Figure 4

*Moderated Relationship between Coworker Age Distance and Turnover*

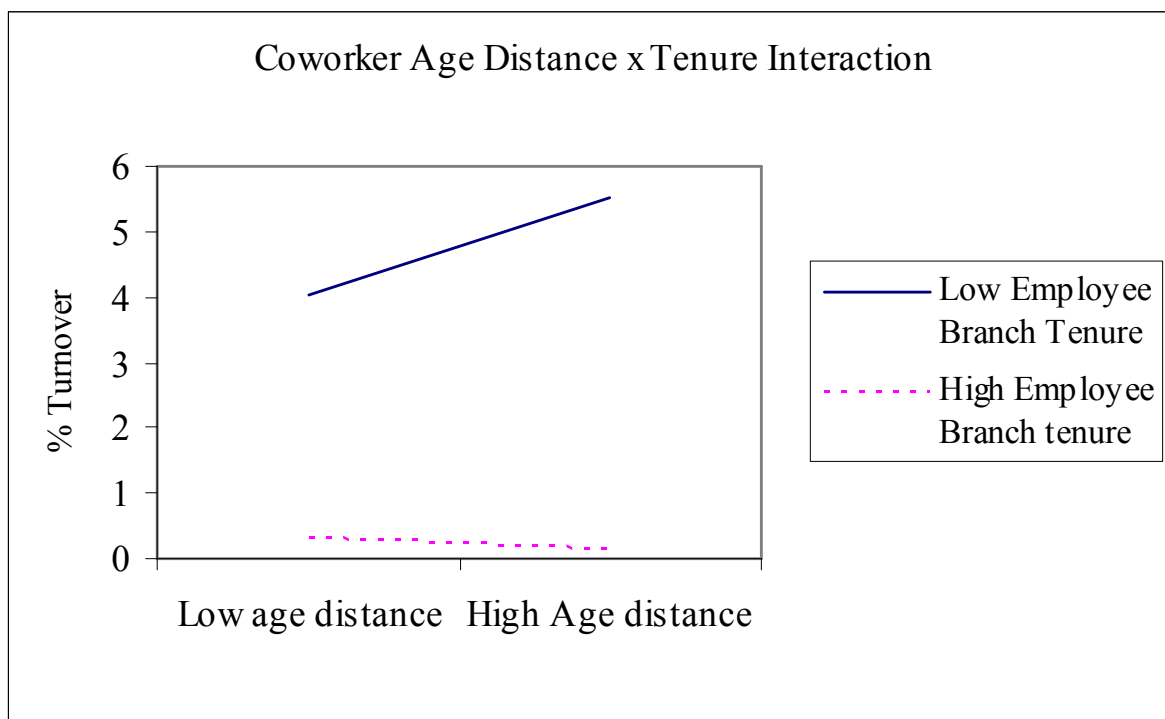


Figure 5

*Moderated Relationship between Coworker Gender Distance and Turnover*

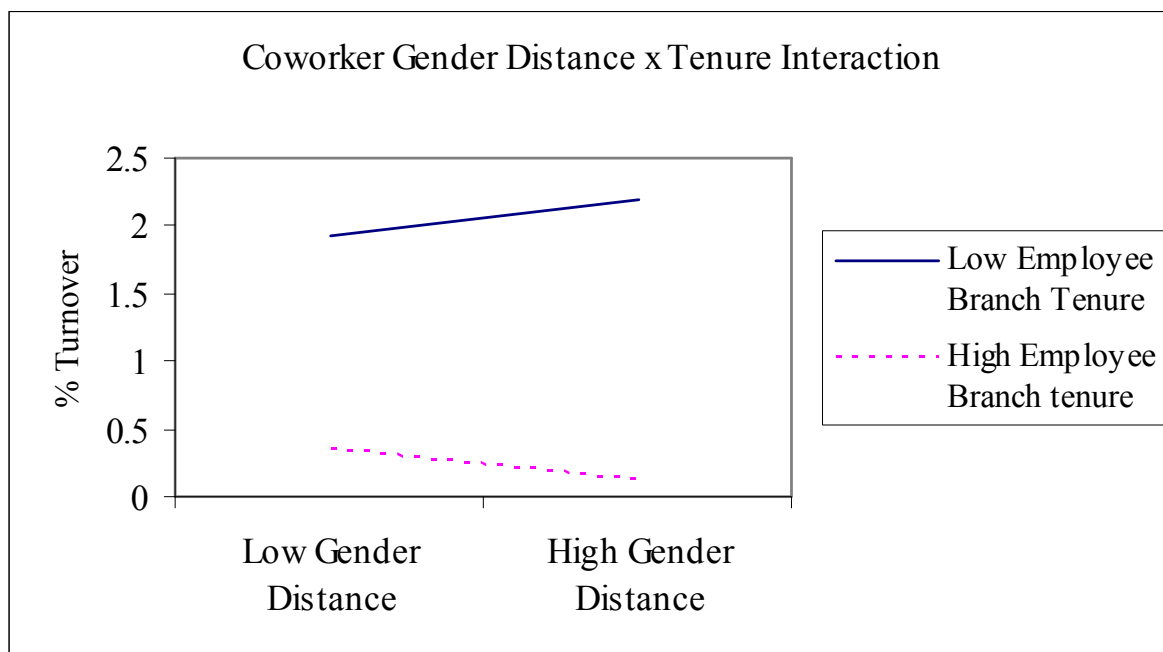


Figure 6

*Moderated Relationship between Coworker Branch Tenure Distance and Turnover*

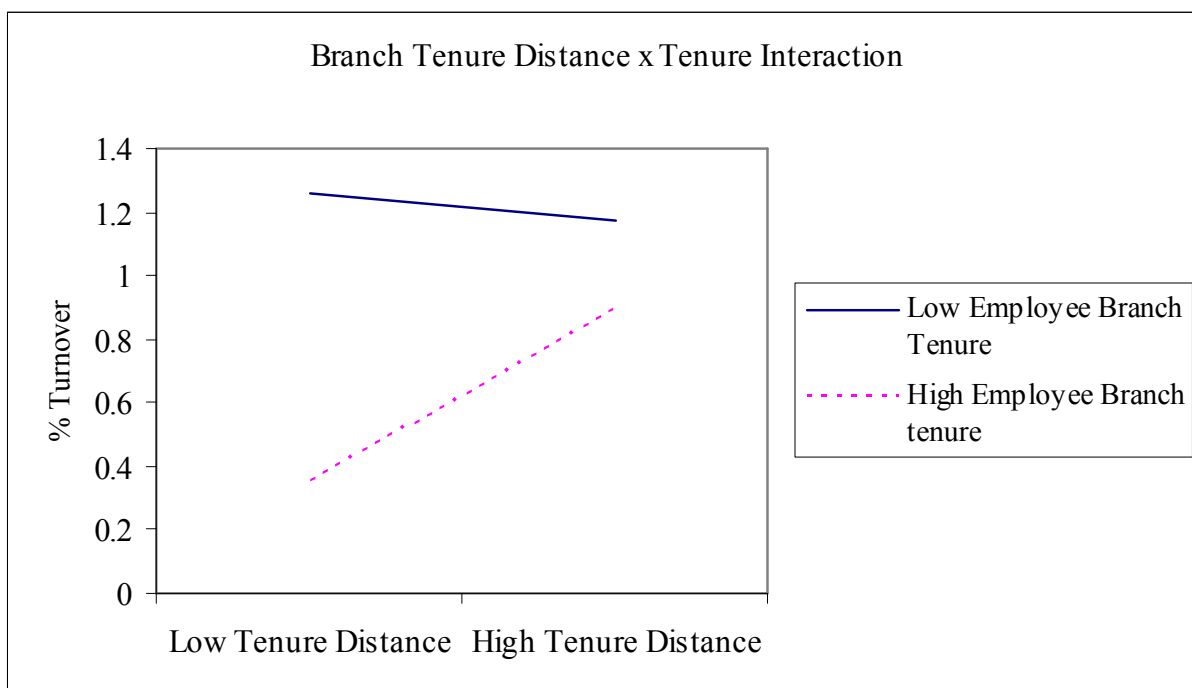


Figure 7

*Moderated Relationship between Supervisor Gender Distance and Turnover*

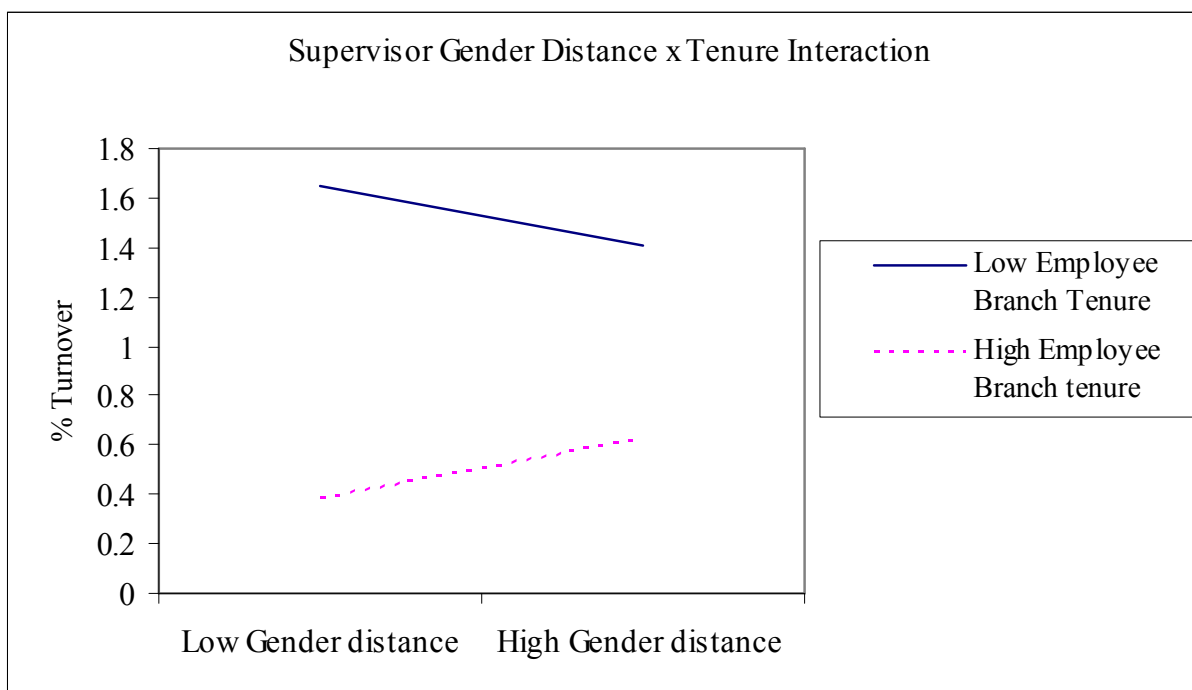


Figure 8

*Moderated Relationship between Coworker Race Distance and Transfer*

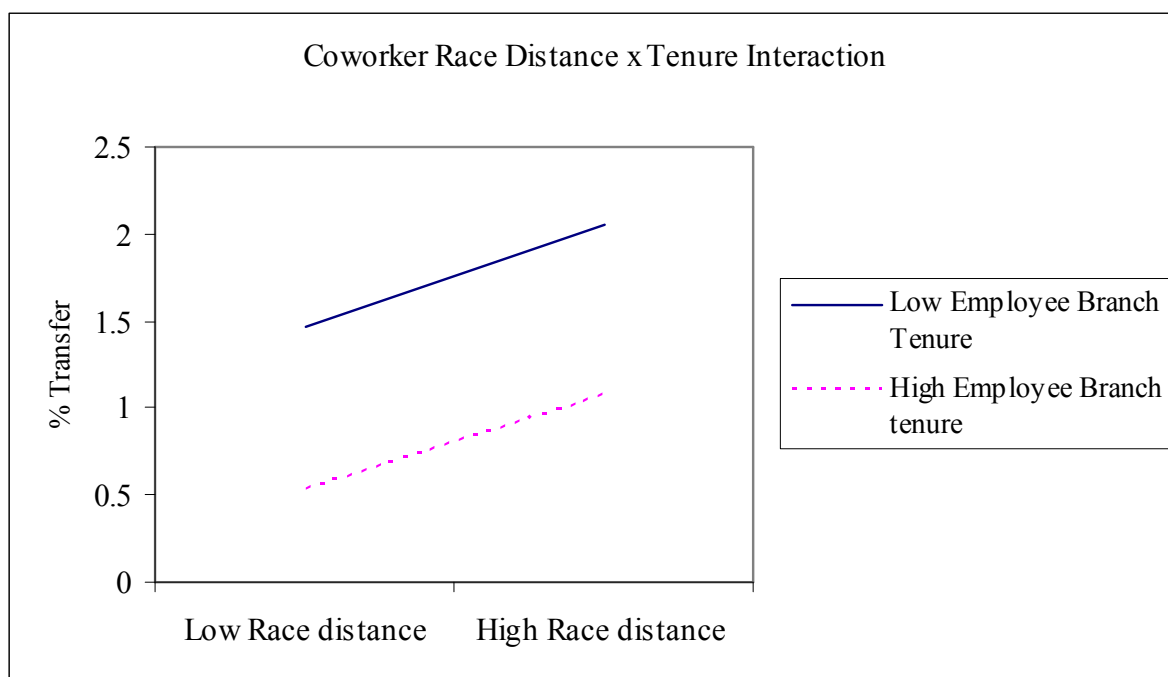




Figure 9

*Moderated Relationship between Coworker Branch Tenure Distance and Transfer*

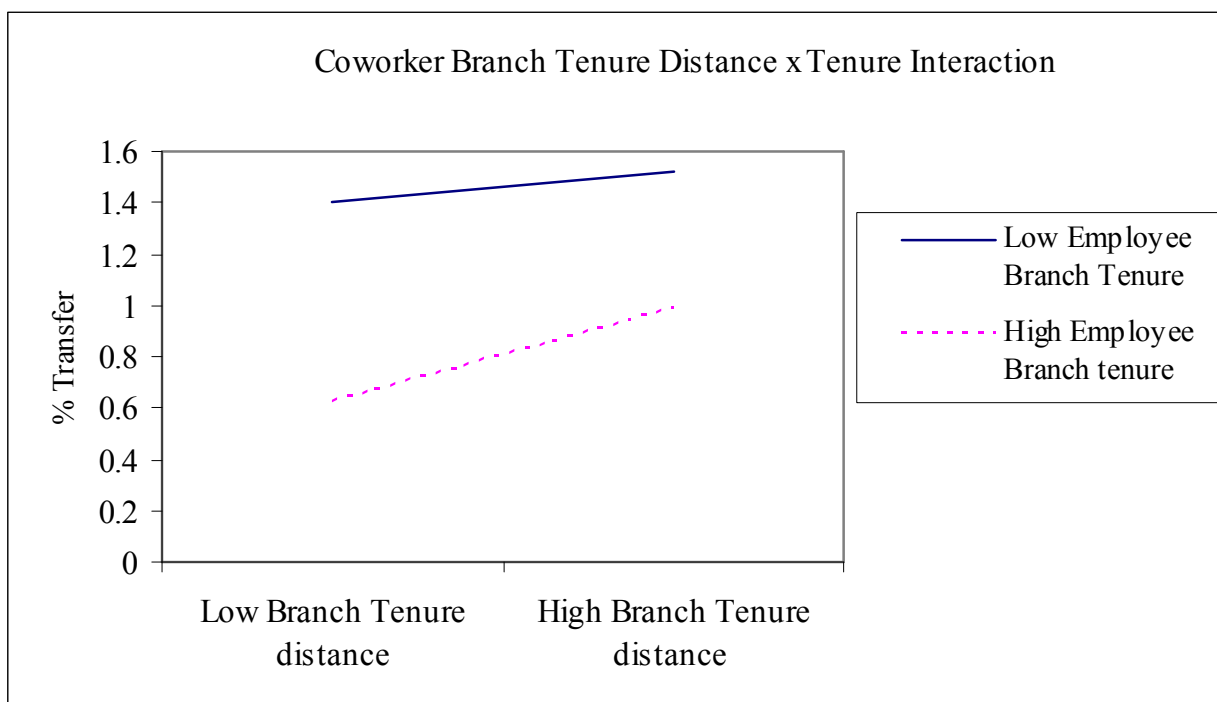


Figure 10

*Moderated Relationship between Supervisor Age Distance and Transfer*

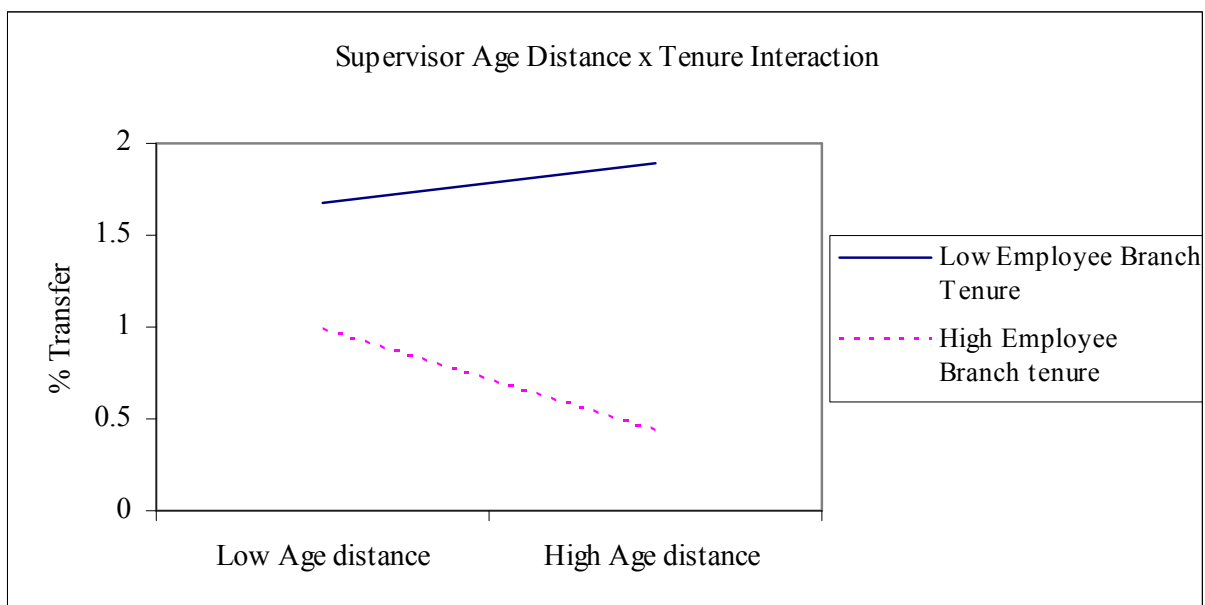


Figure 11

*Moderated Relationship between Supervisor Gender Distance and Transfer*

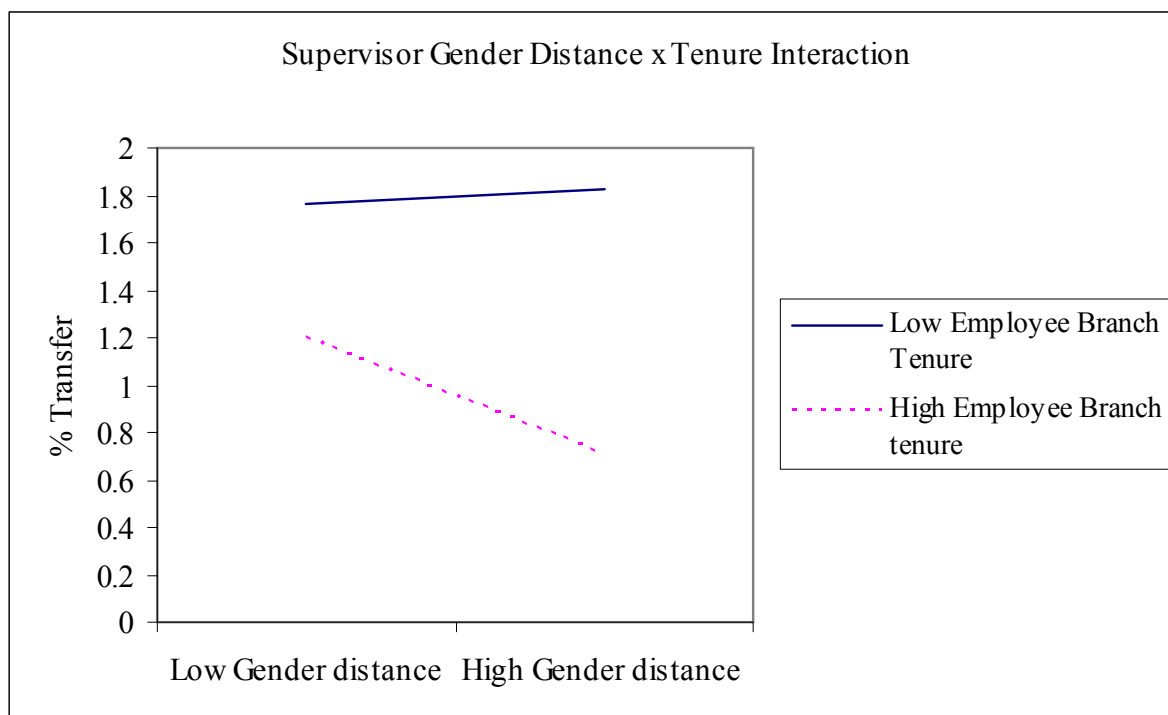


Figure 12

*Moderated Relationship between Supervisor Race Distance and Transfer*

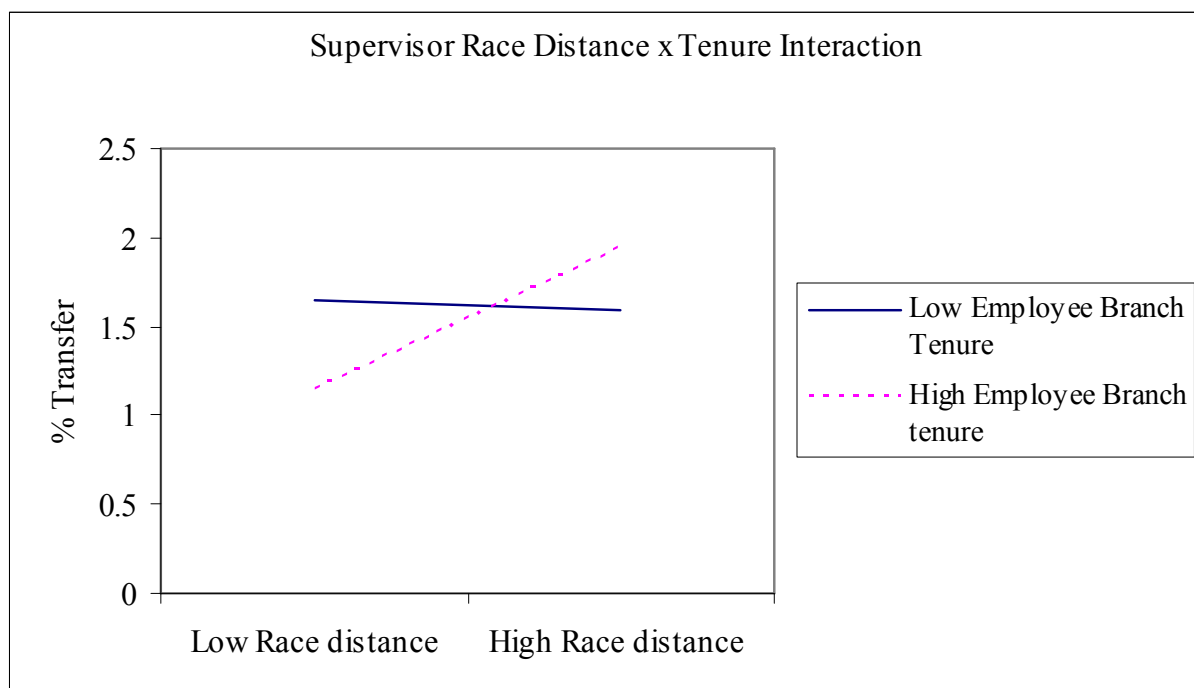


Figure 13

*Asymmetric Relationship between Supervisor Gender Distance and Turnover*

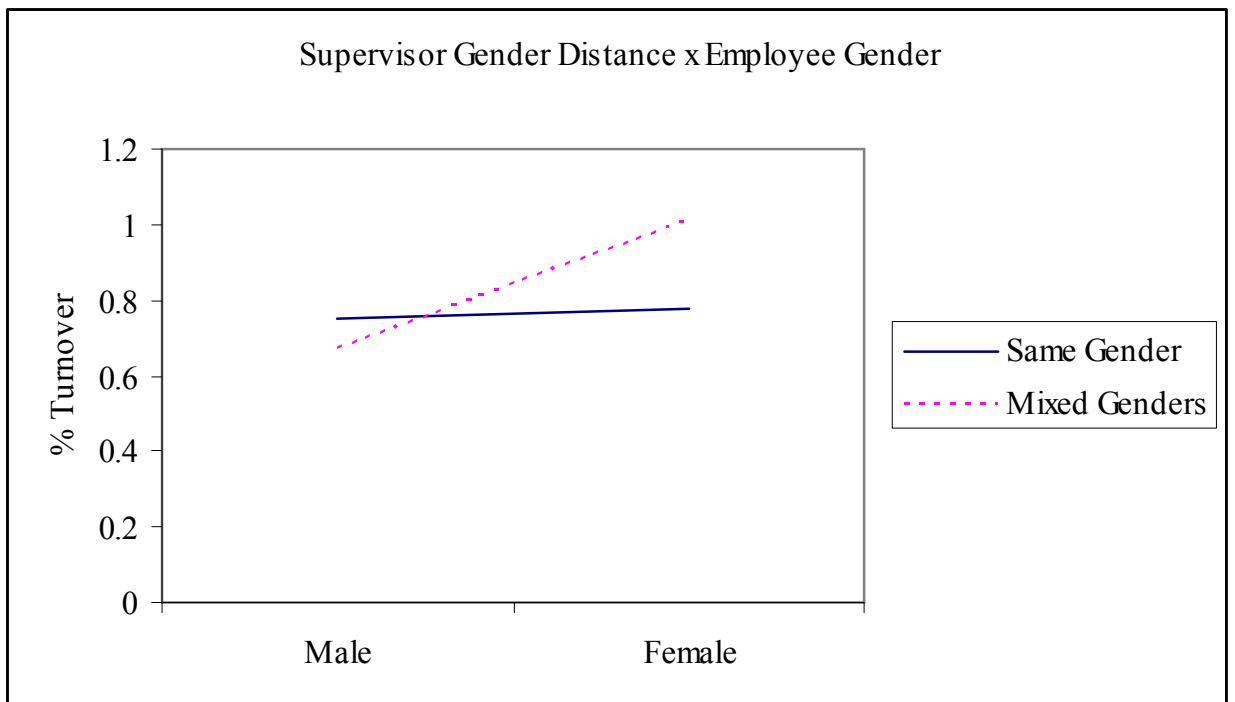
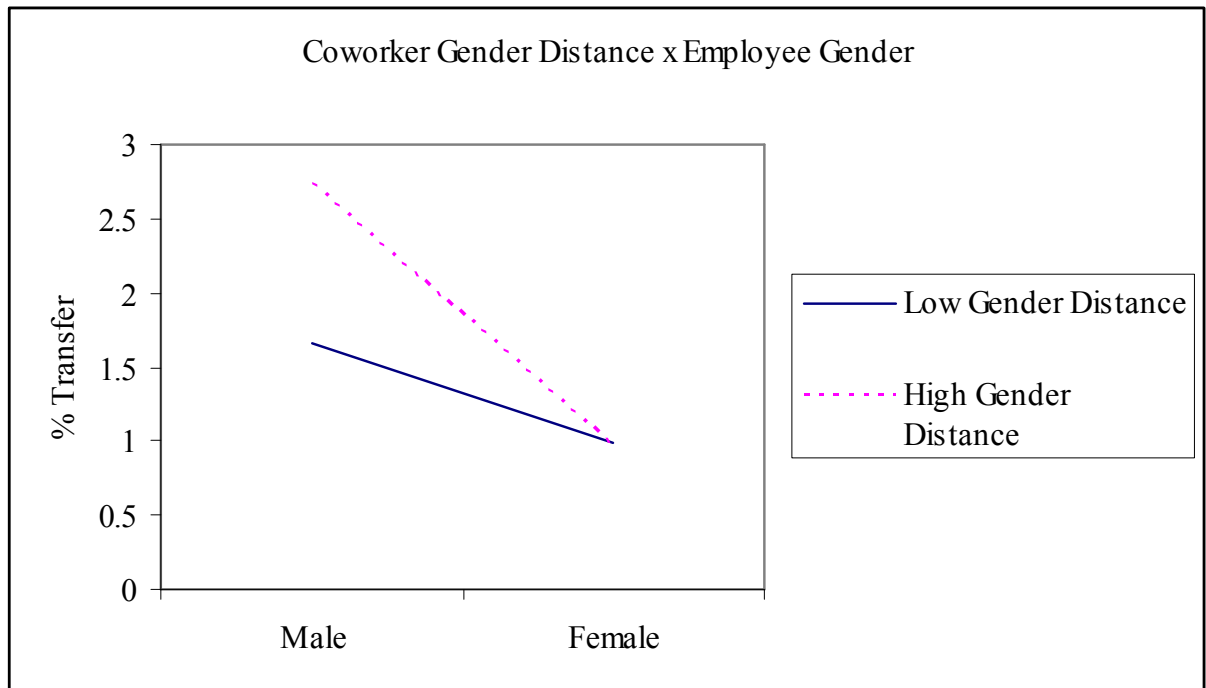


Figure 14

*Asymmetric Relationship between Coworker Gender Distance and Transfer*



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